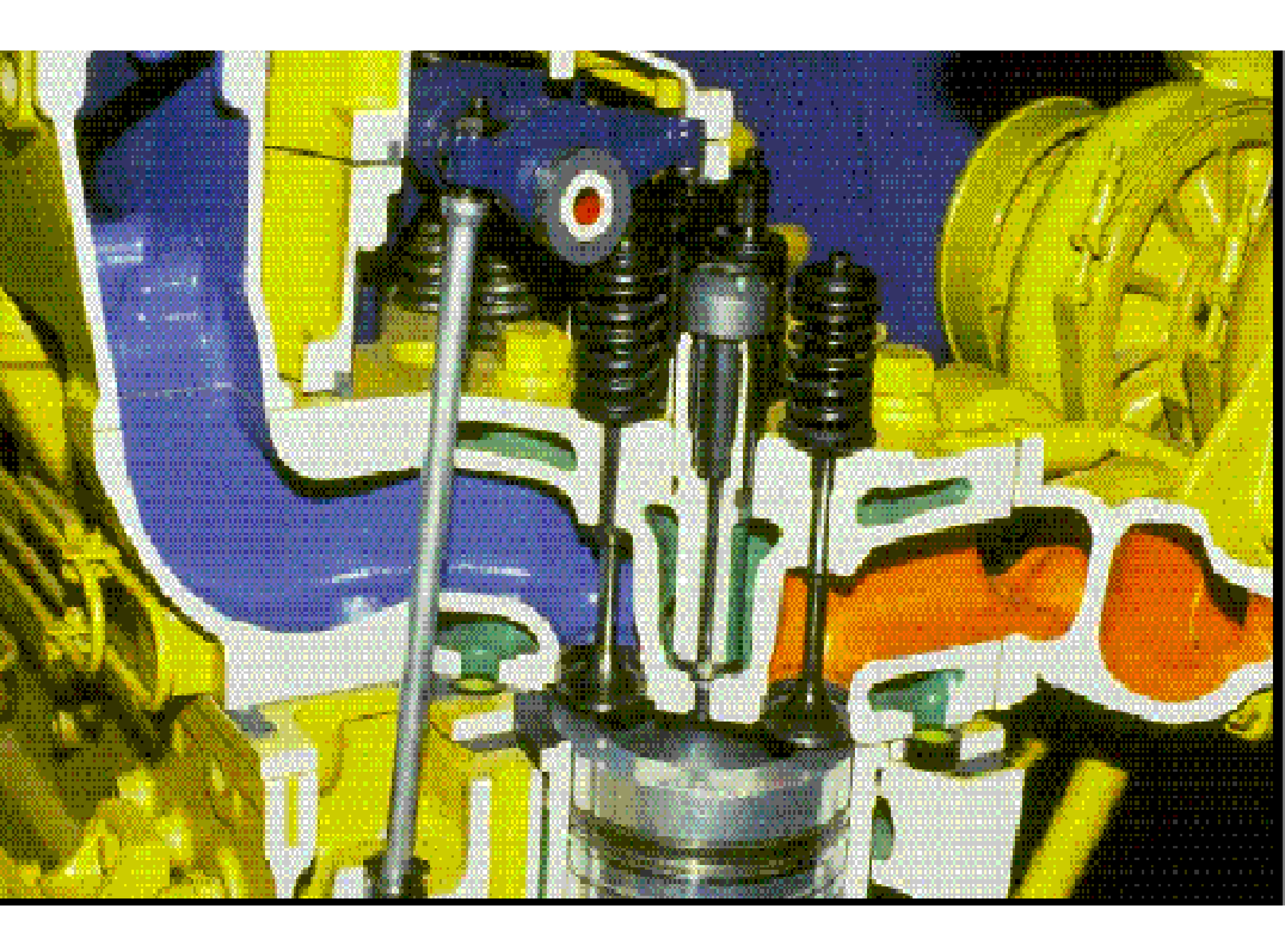
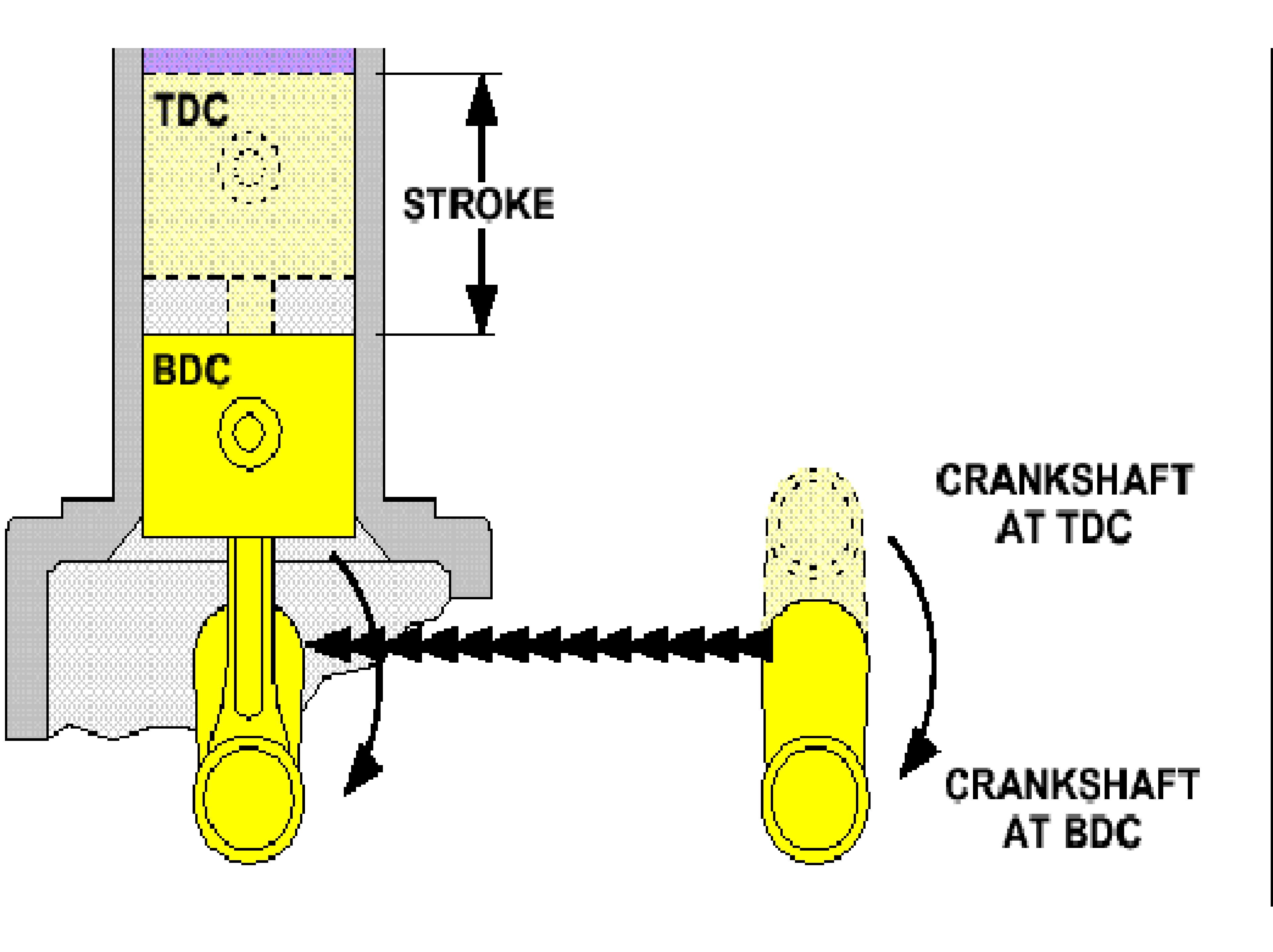
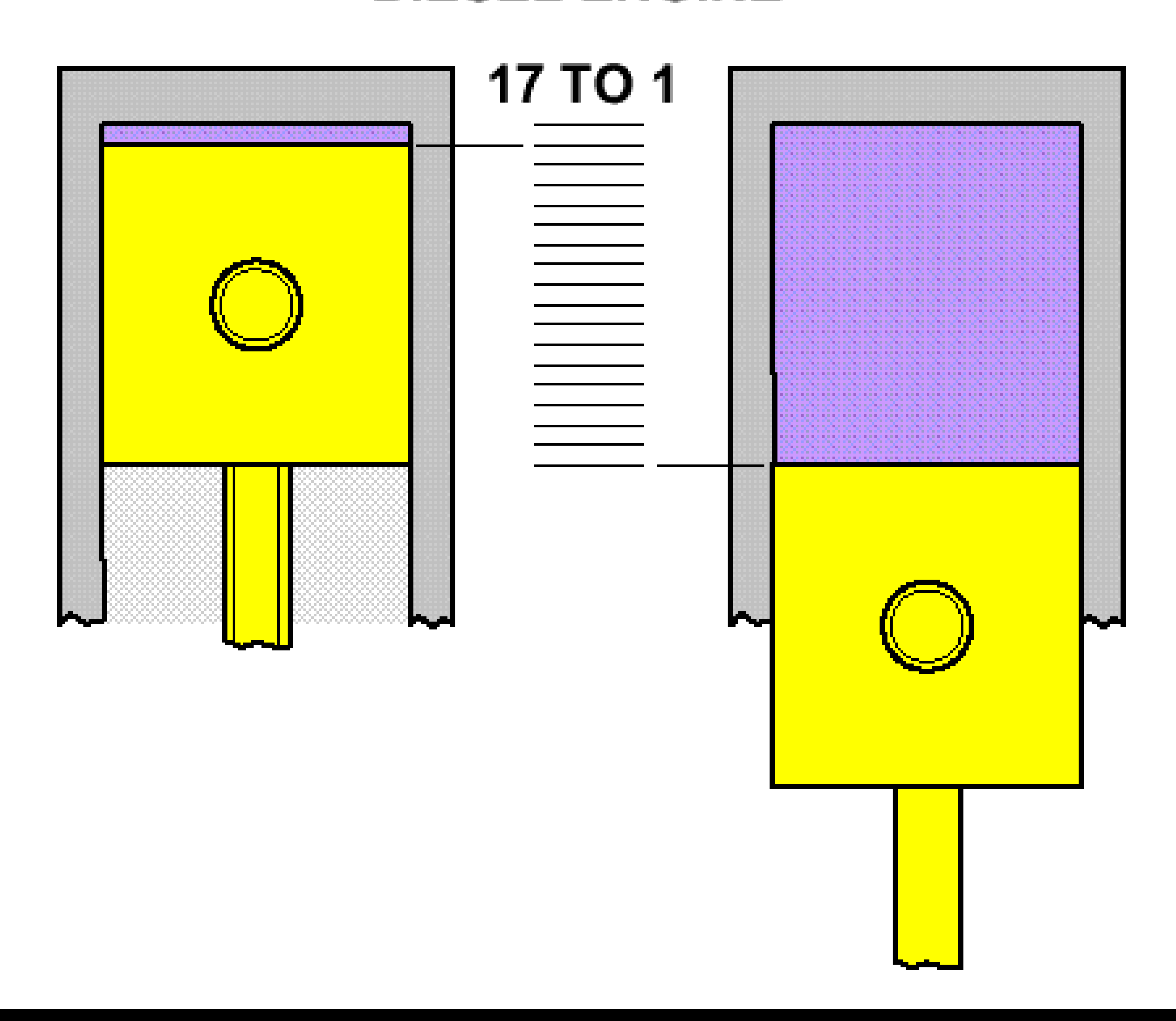
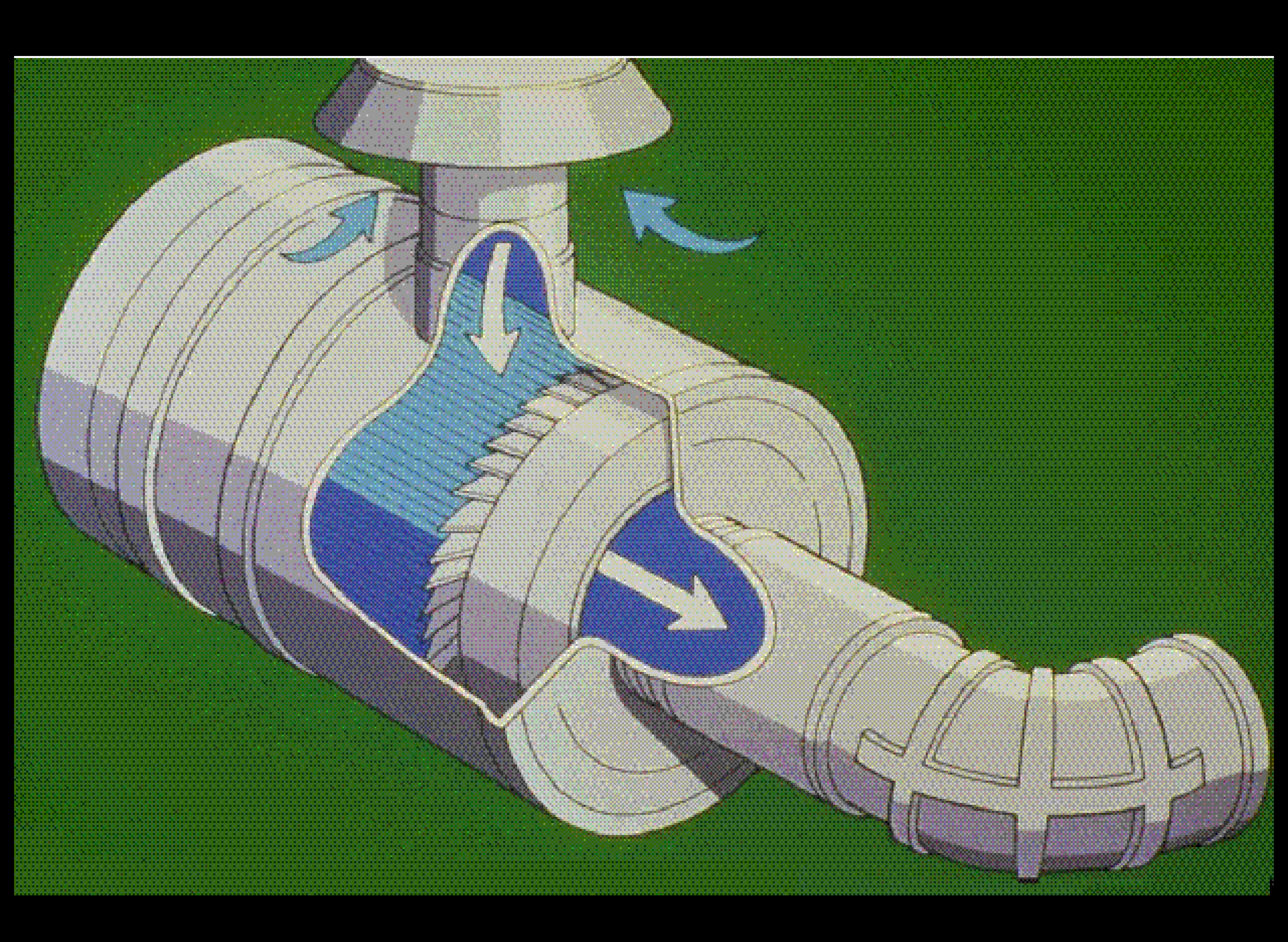



TDC
STROKE
BDC
CRANKSHAFT
AT TDC
CRANKSHAFT
AT BDC


DIESEL ENGINE
17 TO 1



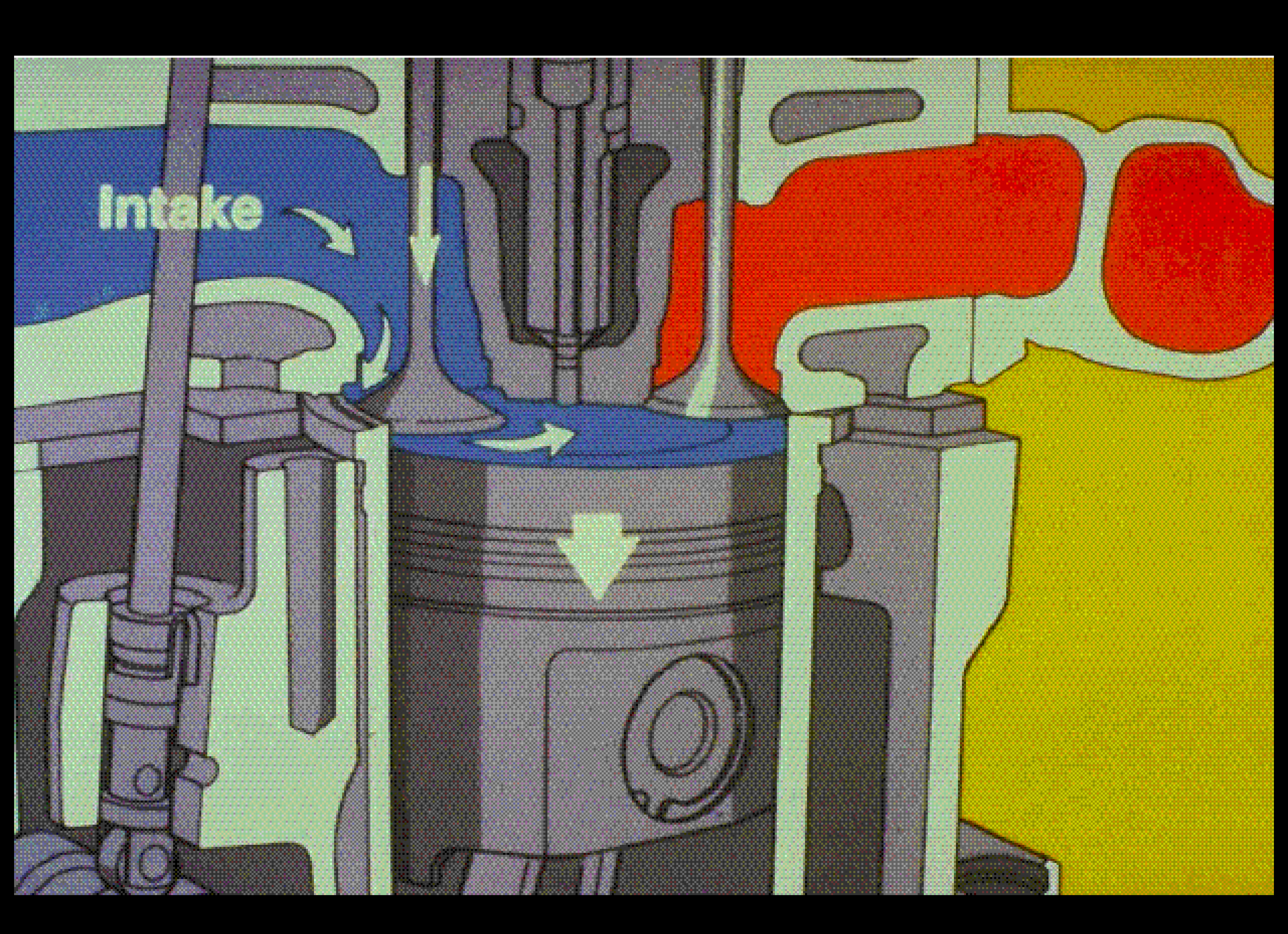

CAT
CAT

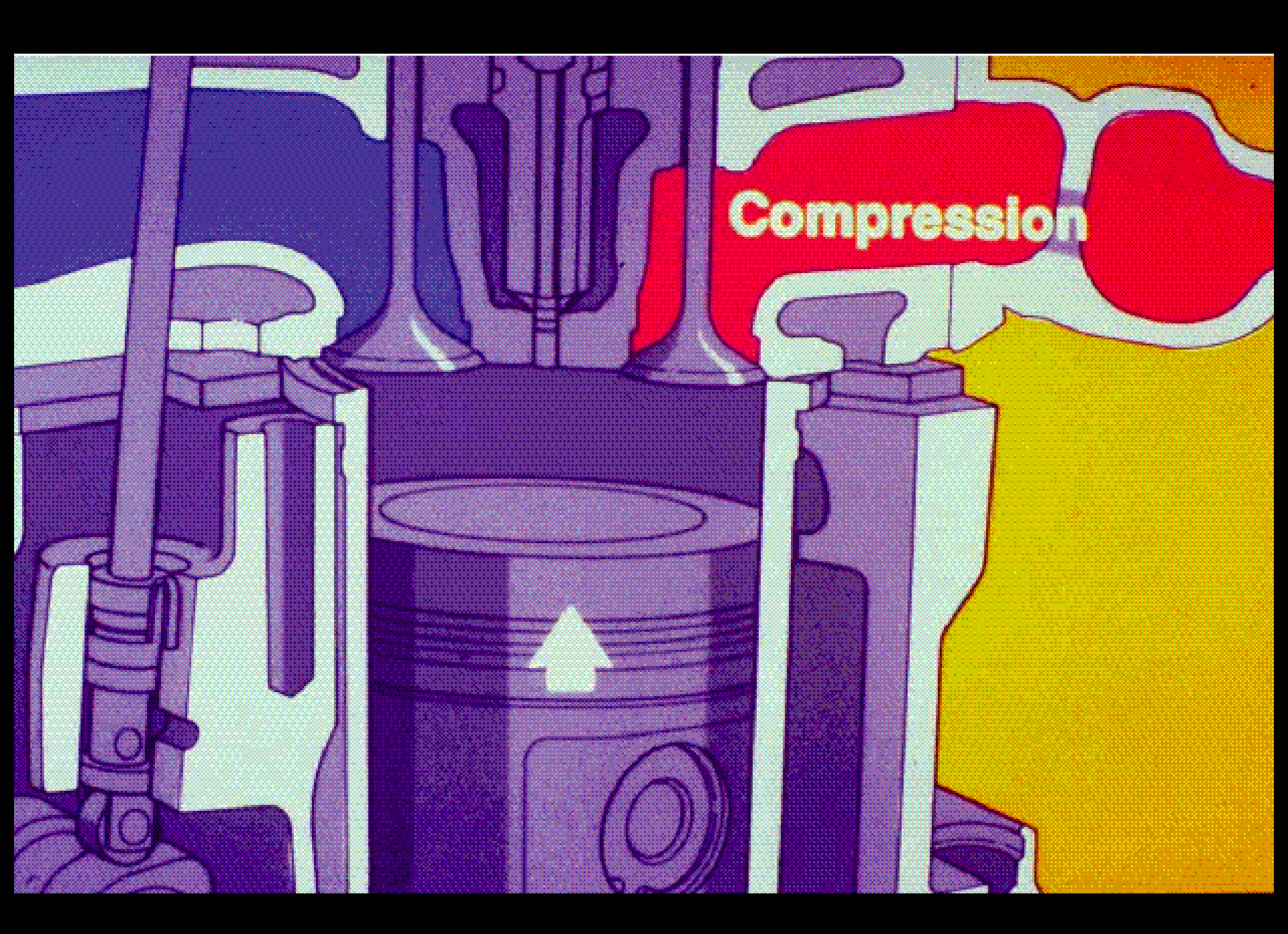

CAT

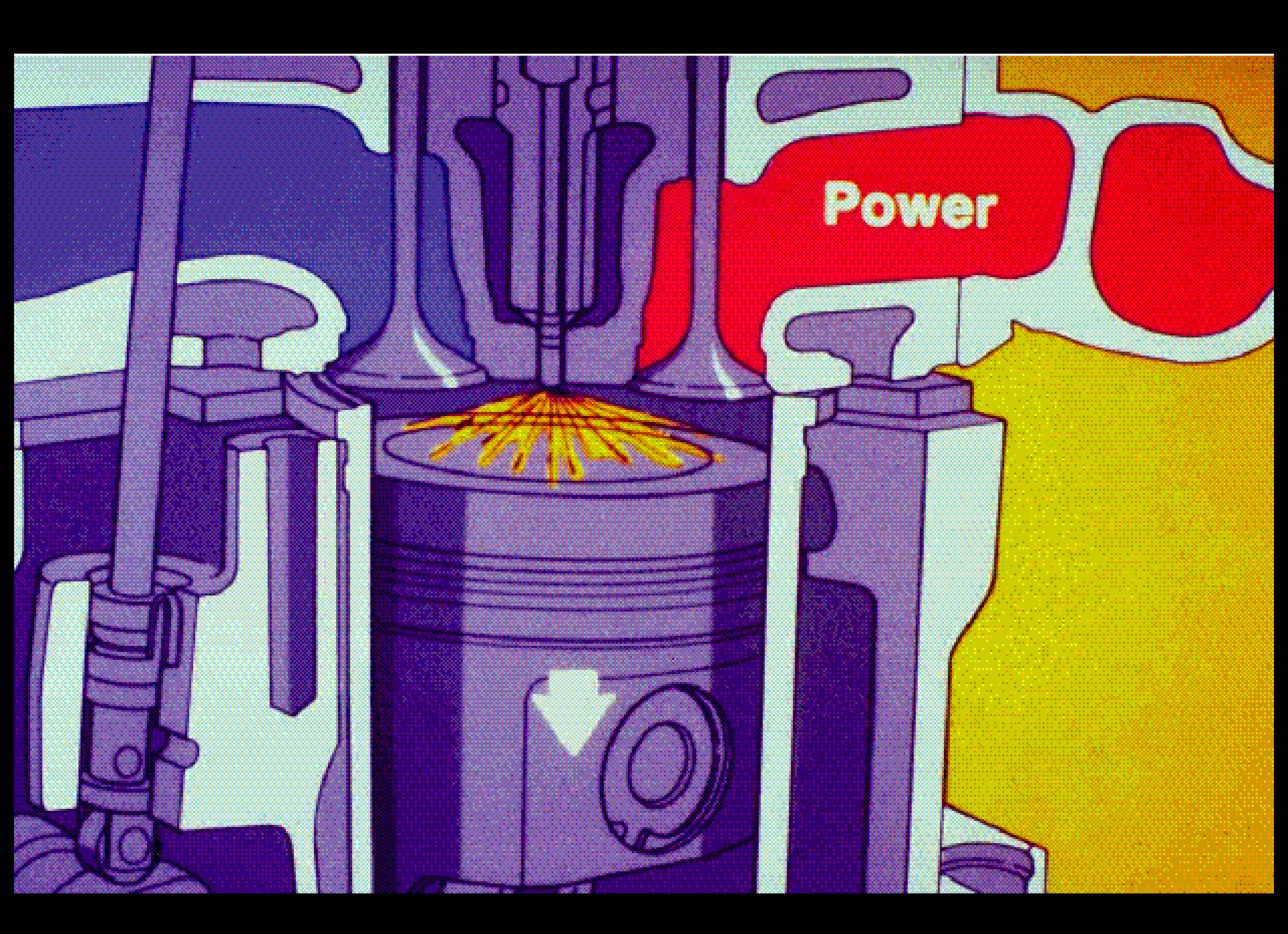




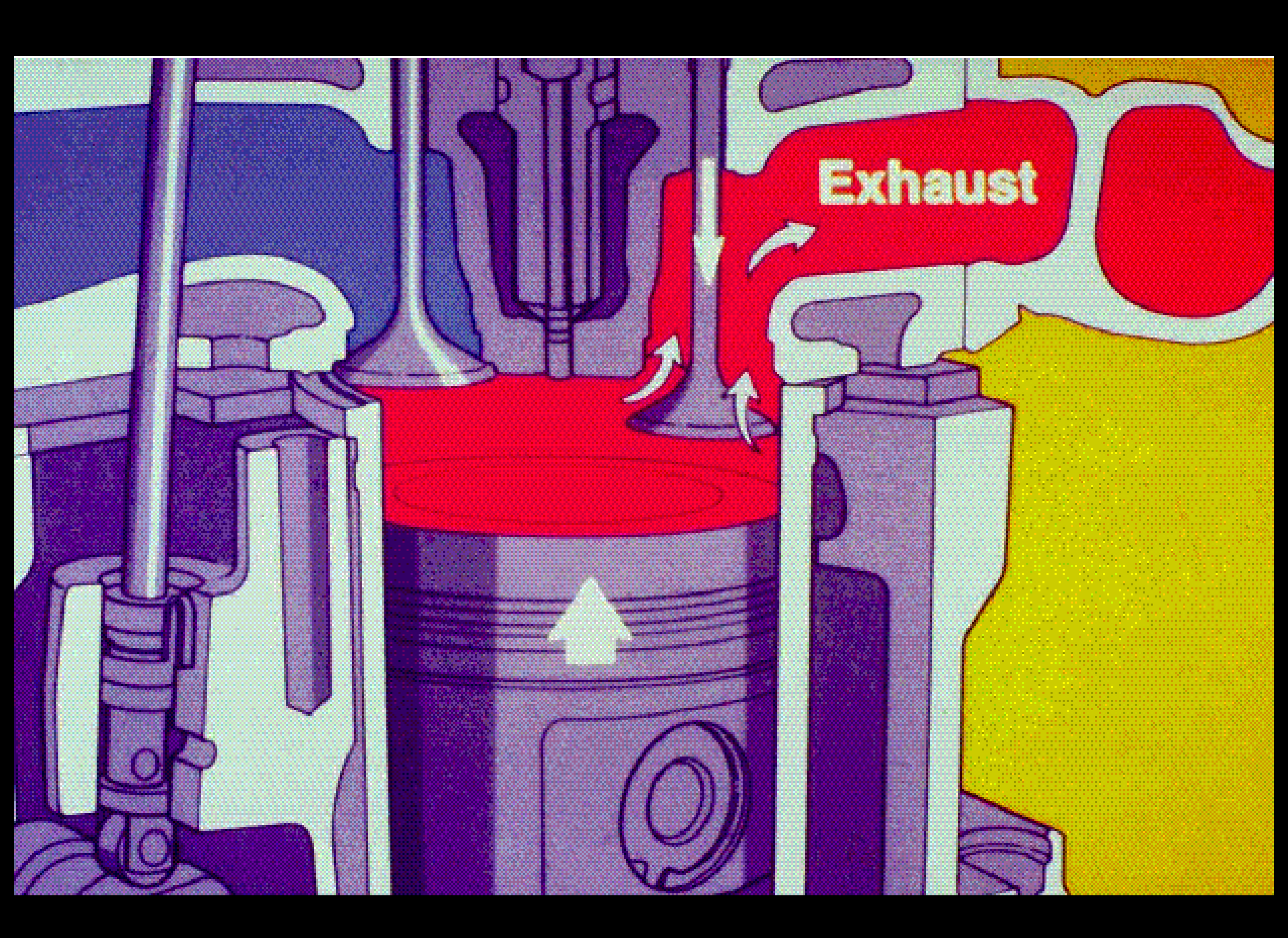



Intake

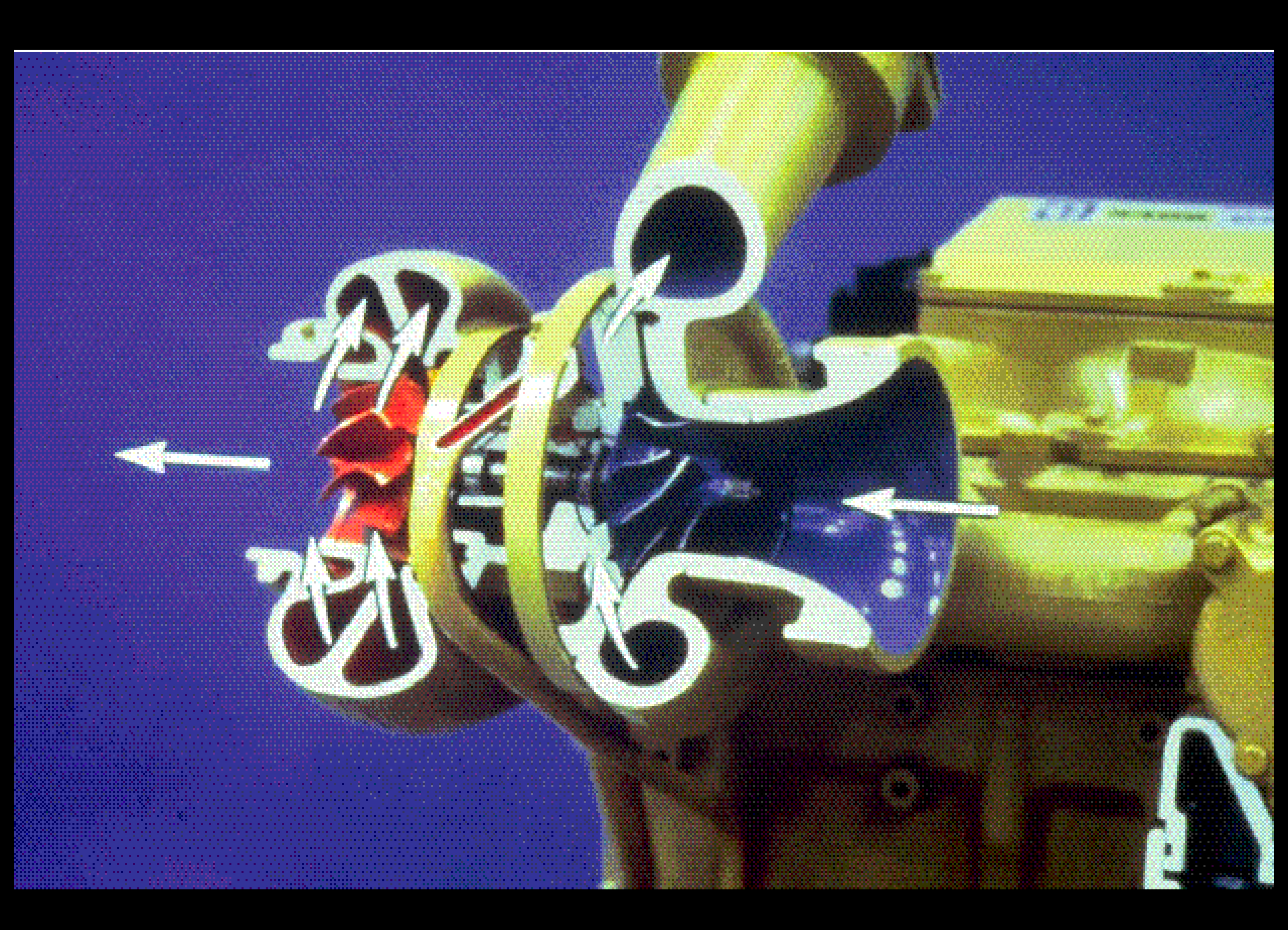

Compression

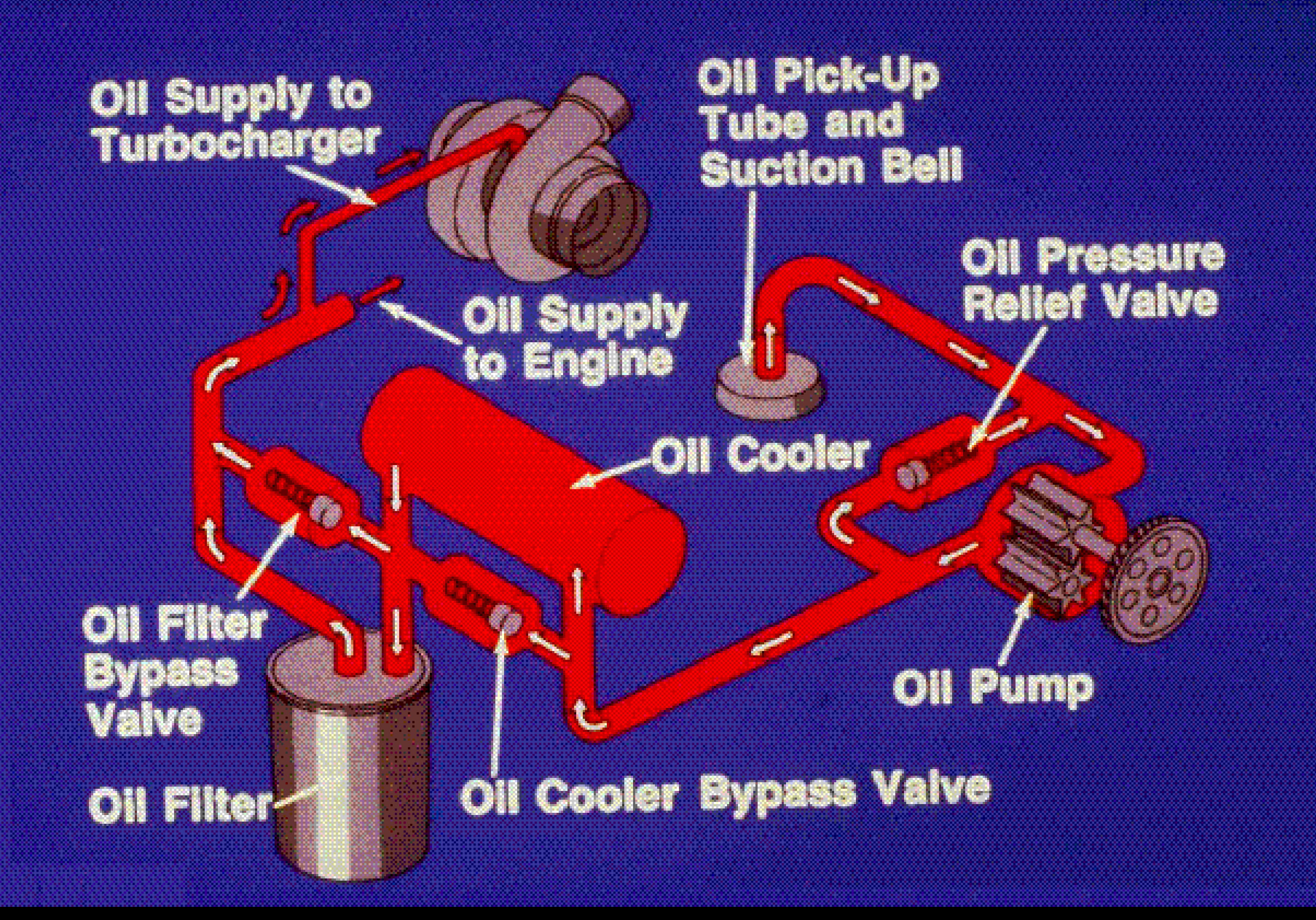


Power

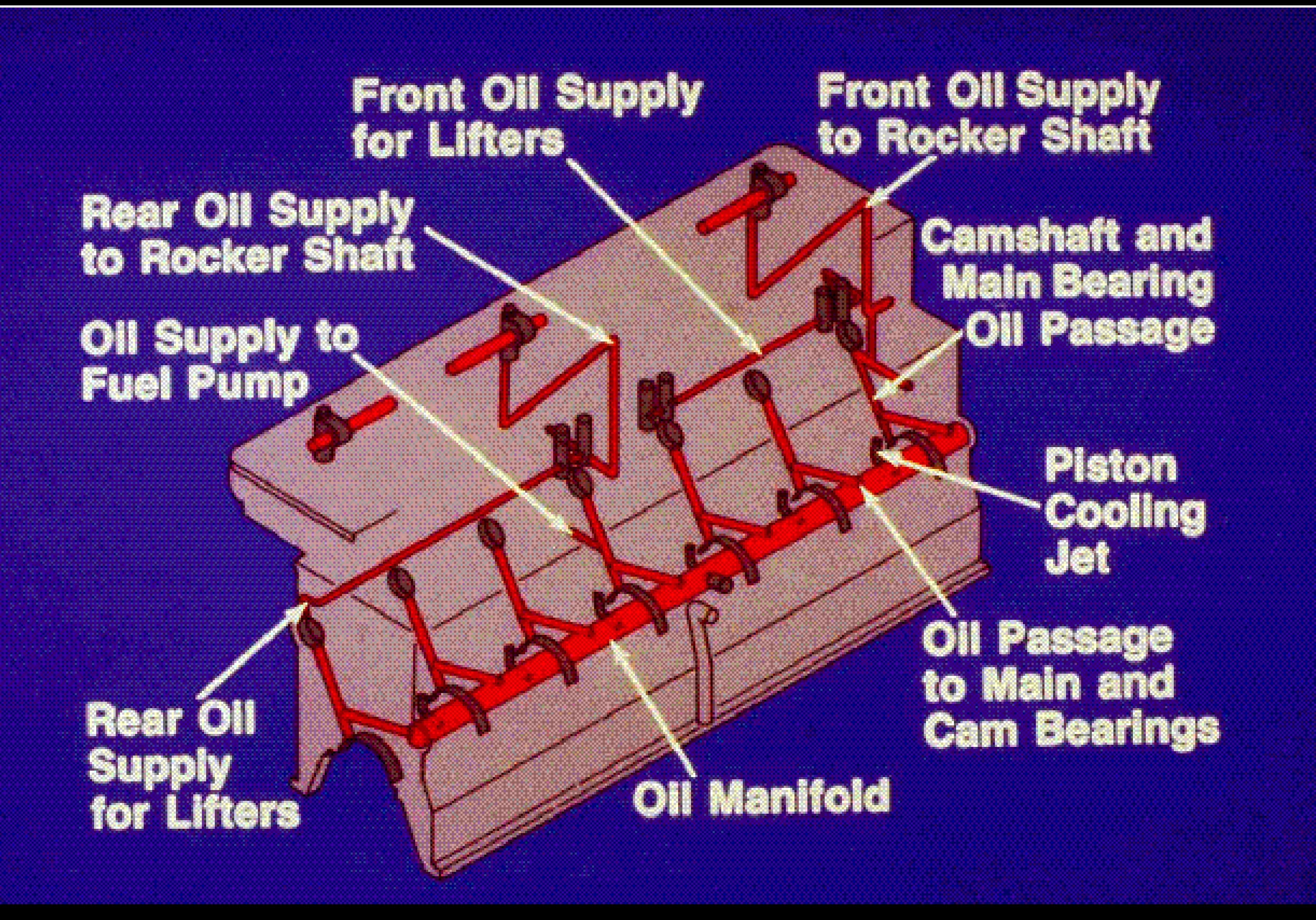

Exhaust

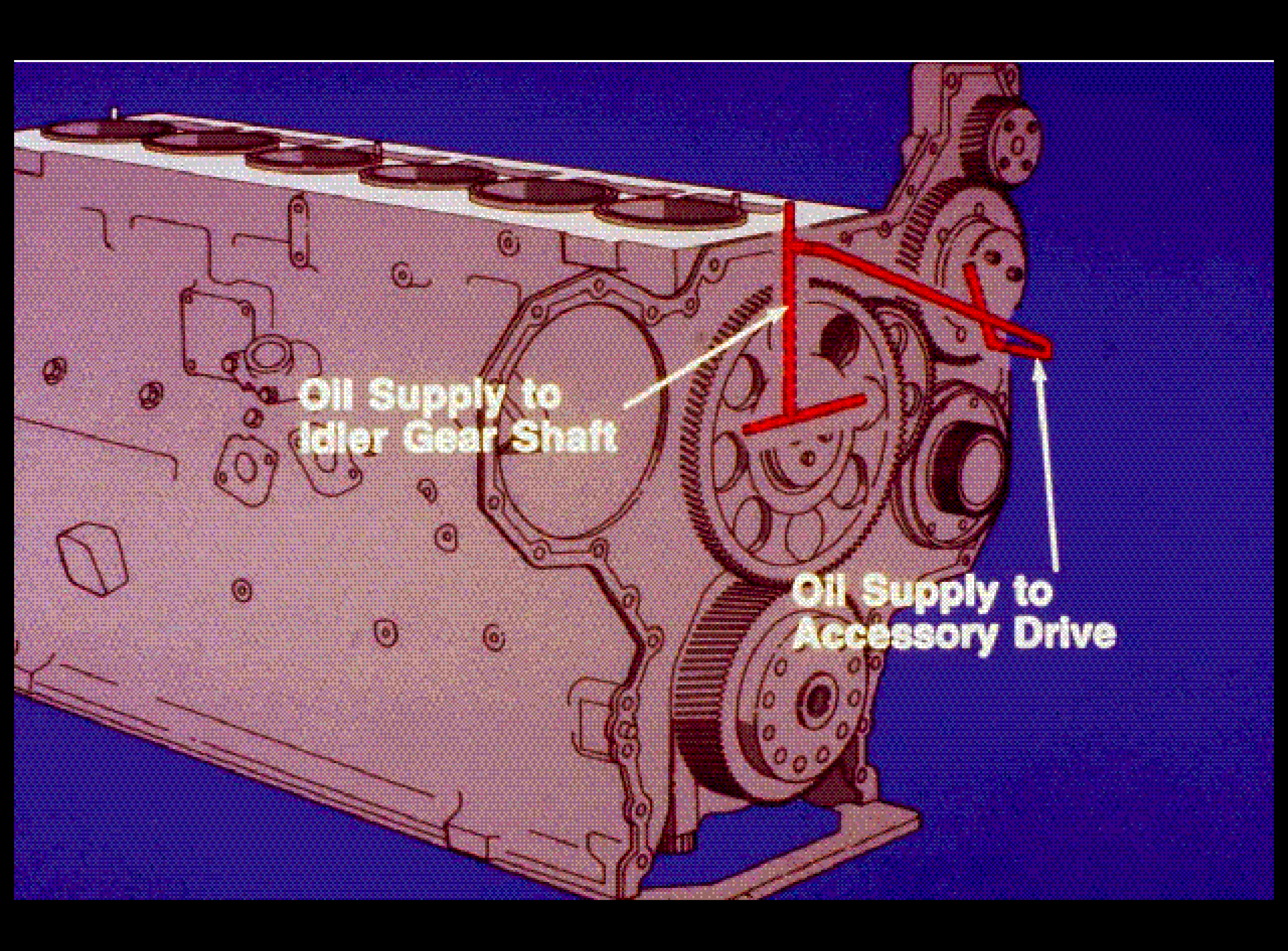


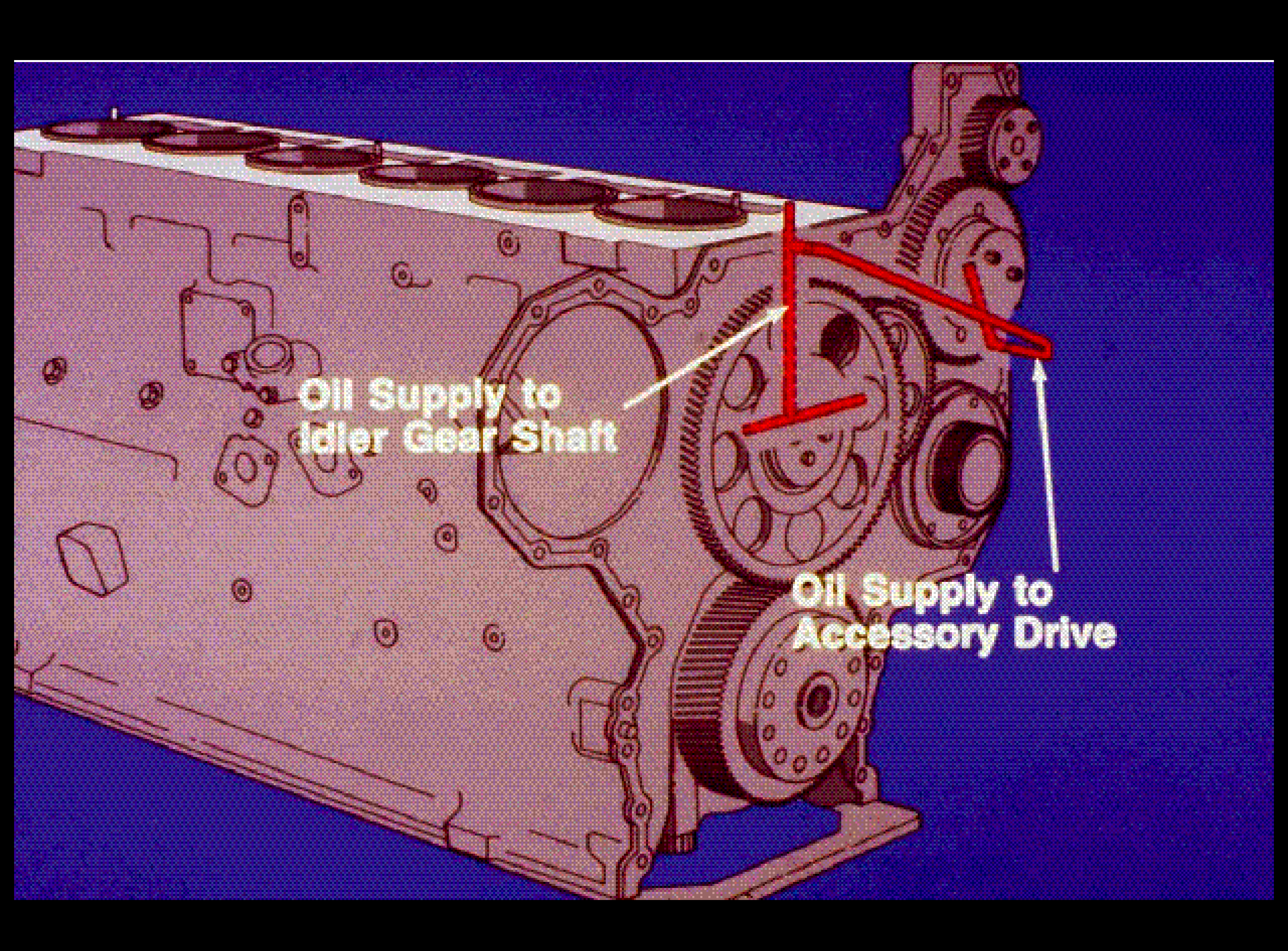


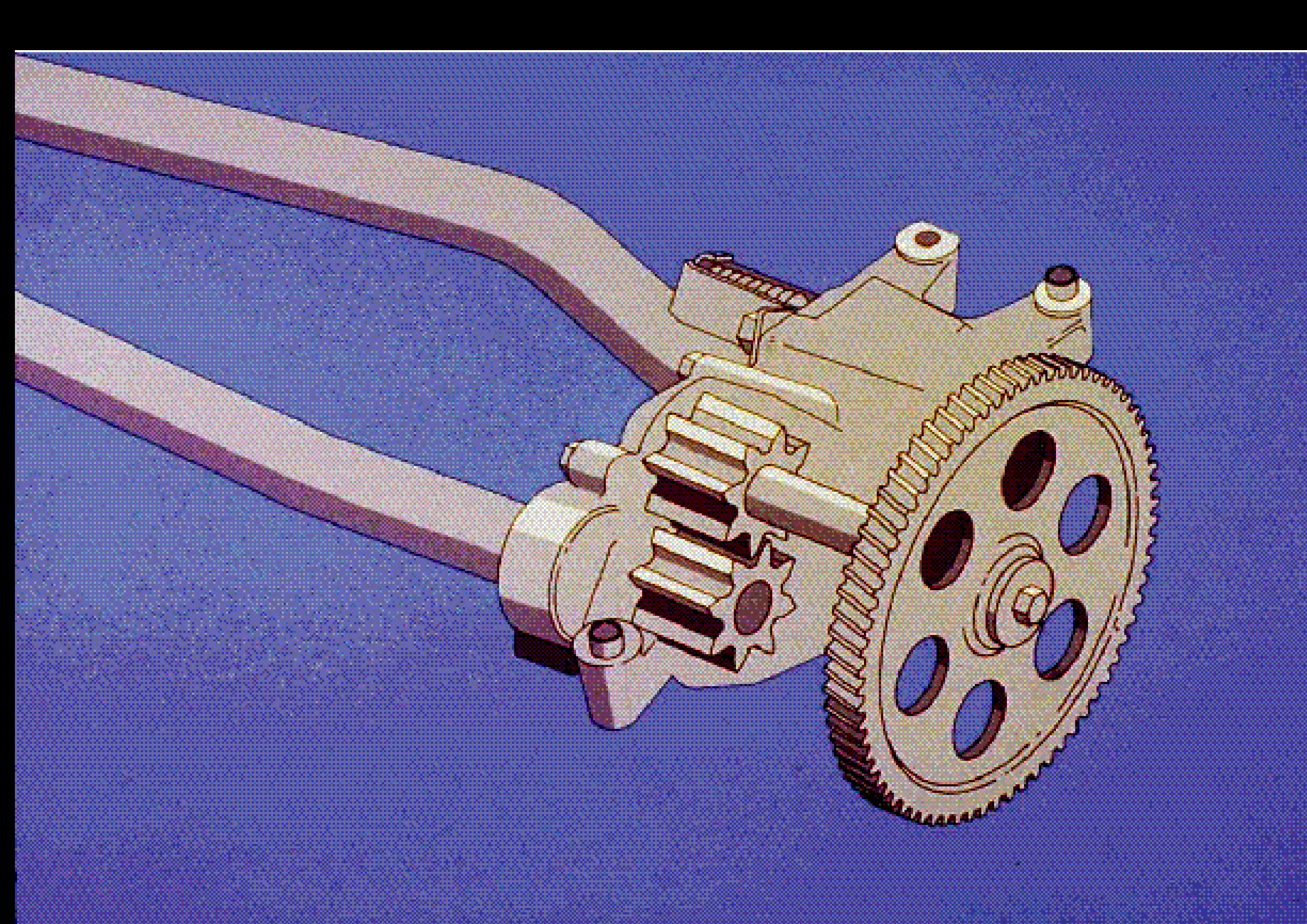


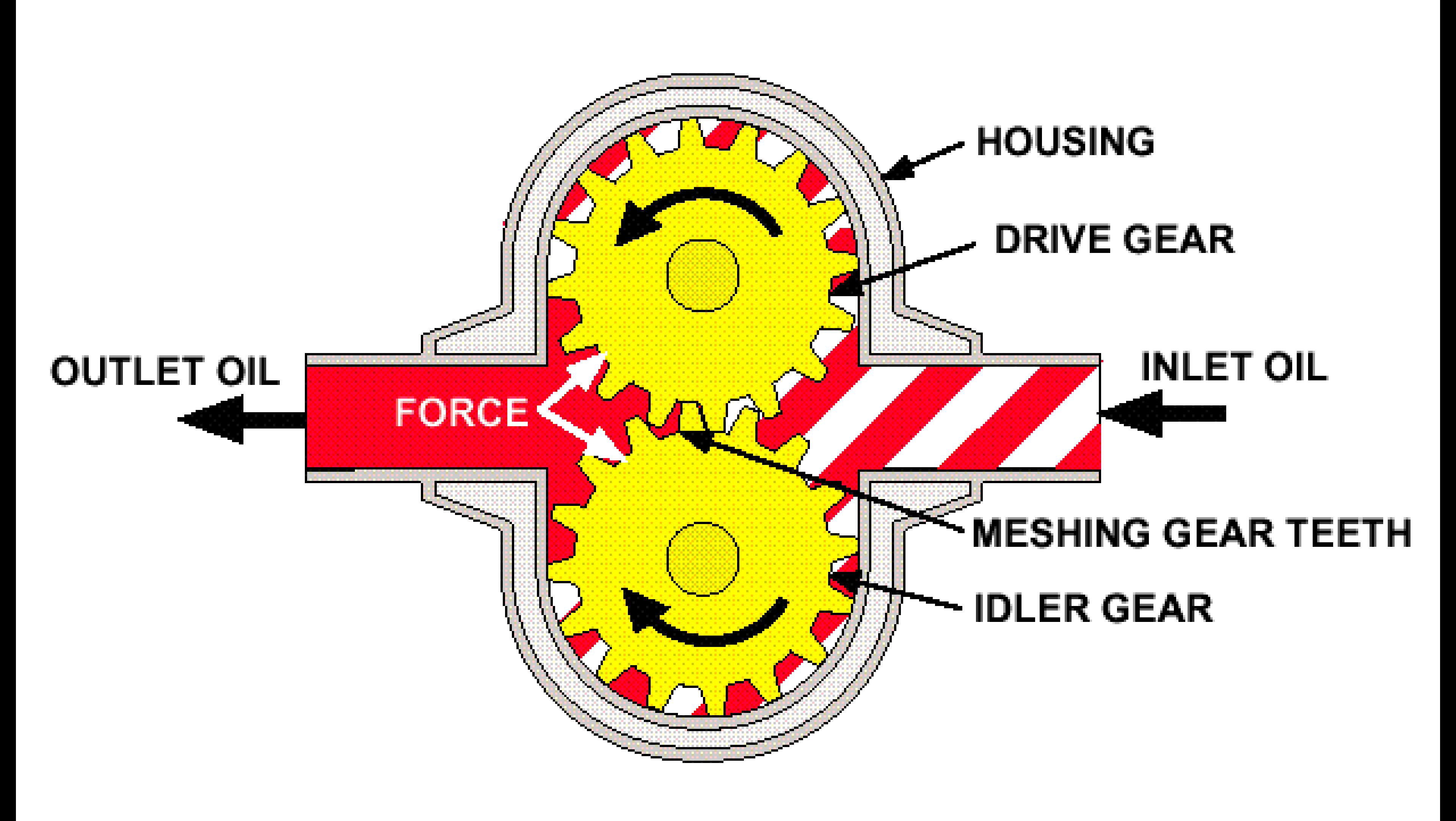
Oil Supply to Turbocharger
Oil Pick-Up Tube and Suction Bell
Oil Pressure Relief Valve
Oil Supply to Engine
Oil Cooler
Oil Filter Bypass Valve
Oil Pump
Oil Filter
Oil Cooler Bypass Valve

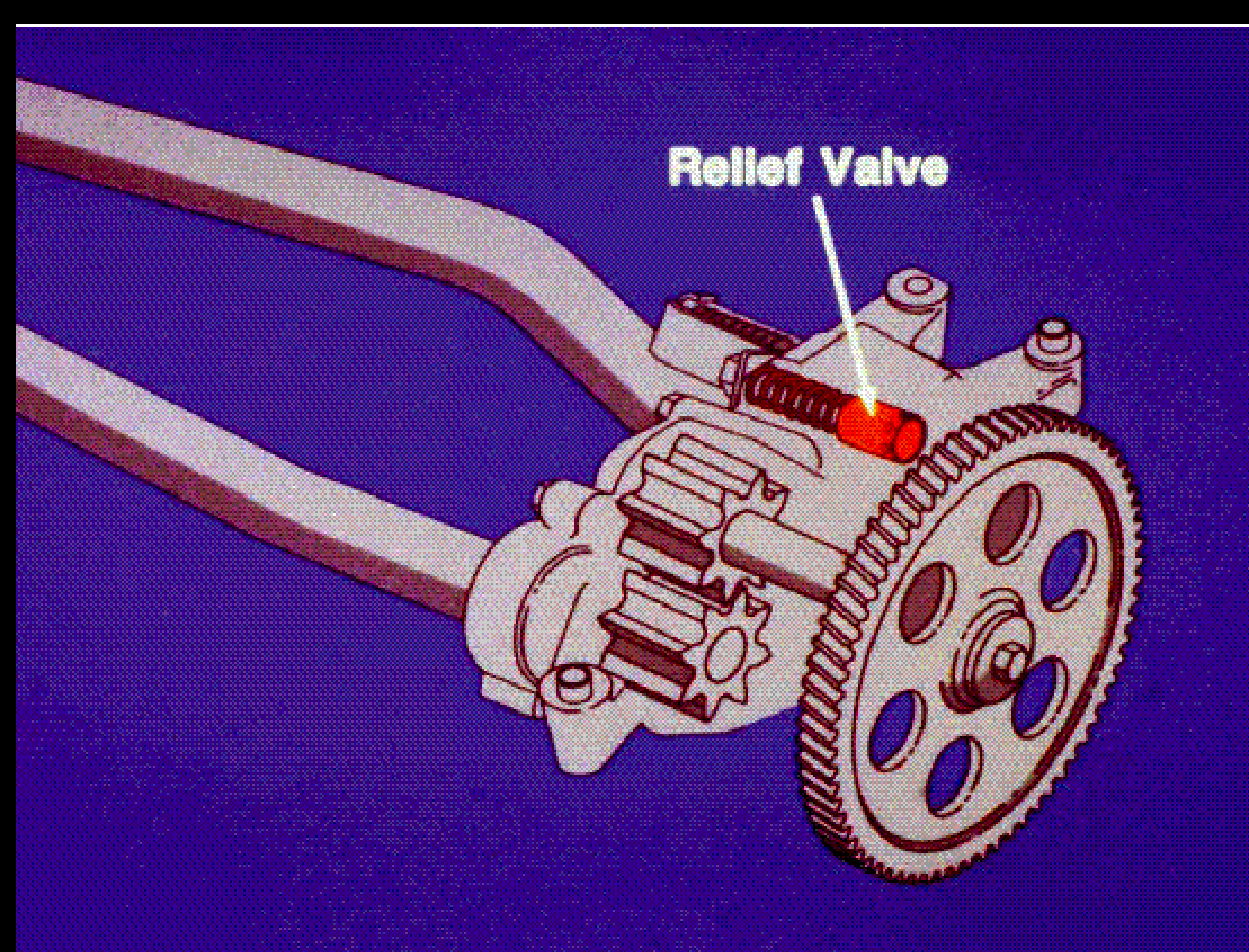

Front Oil Supply
for Lifters
Front Oil Supply
to Rocker Shaft
Rear Oil Supply
to Rocker Shaft
Camshaft and
Main Bearing
Oil Passage
Oil Supply to
Fuel Pump
Piston
Cooling
Jet
Oil Passage
to Main and
Cam Bearings
Rear Oil
Supply
for Lifters
Oil Manifold

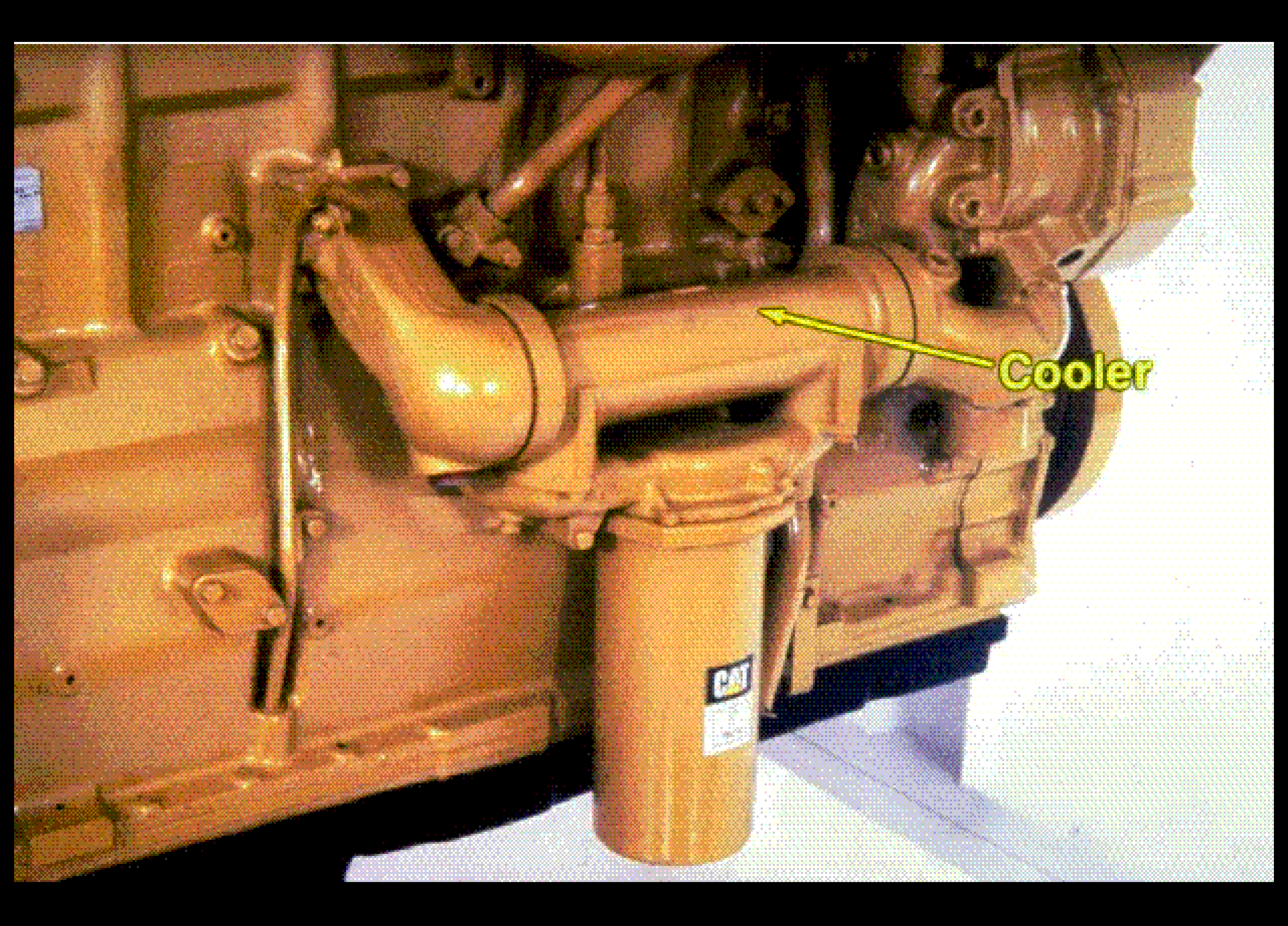

Oil Supply to
Idler Gear Shaft
Oil Supply to
Accessory Drive

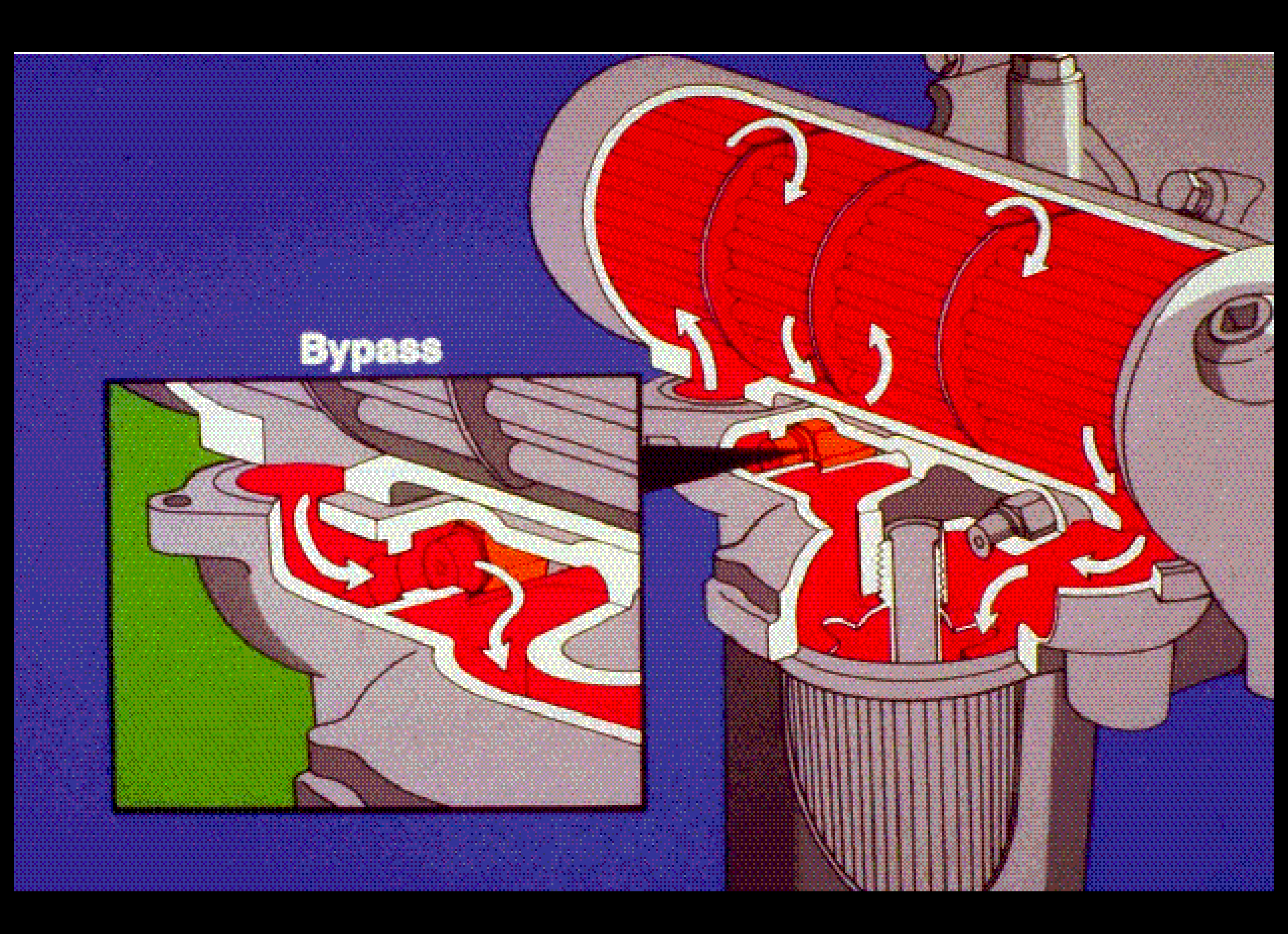

Oil Supply to
Idler Gear Shaft
Oil Supply to
Accessory Drive



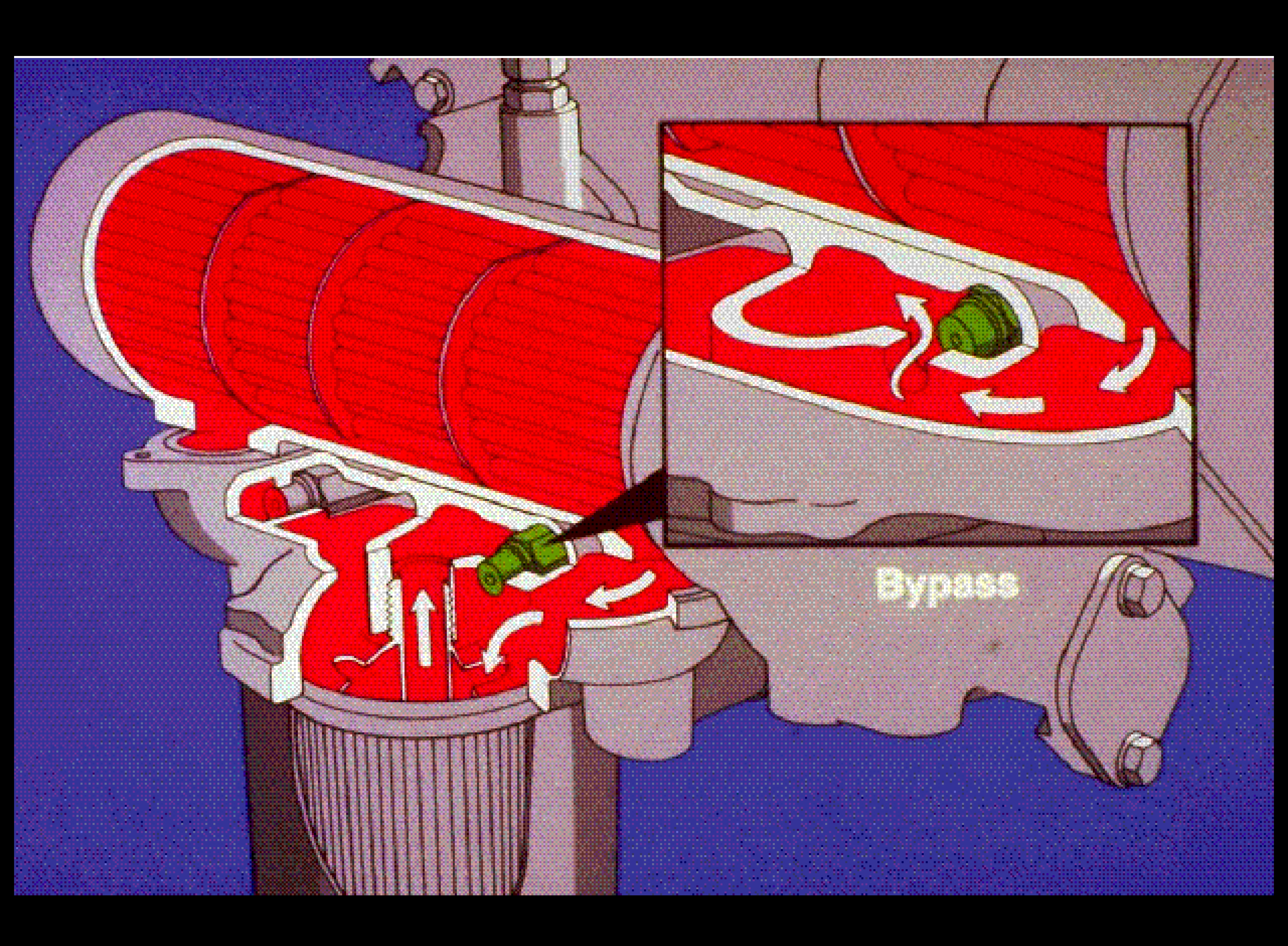

HOUSING
DRIVE GEAR
OUTLET OIL
FORCE
INLET OIL
MESHING GEAR TEETH
IDLER GEAR


Relief Valve

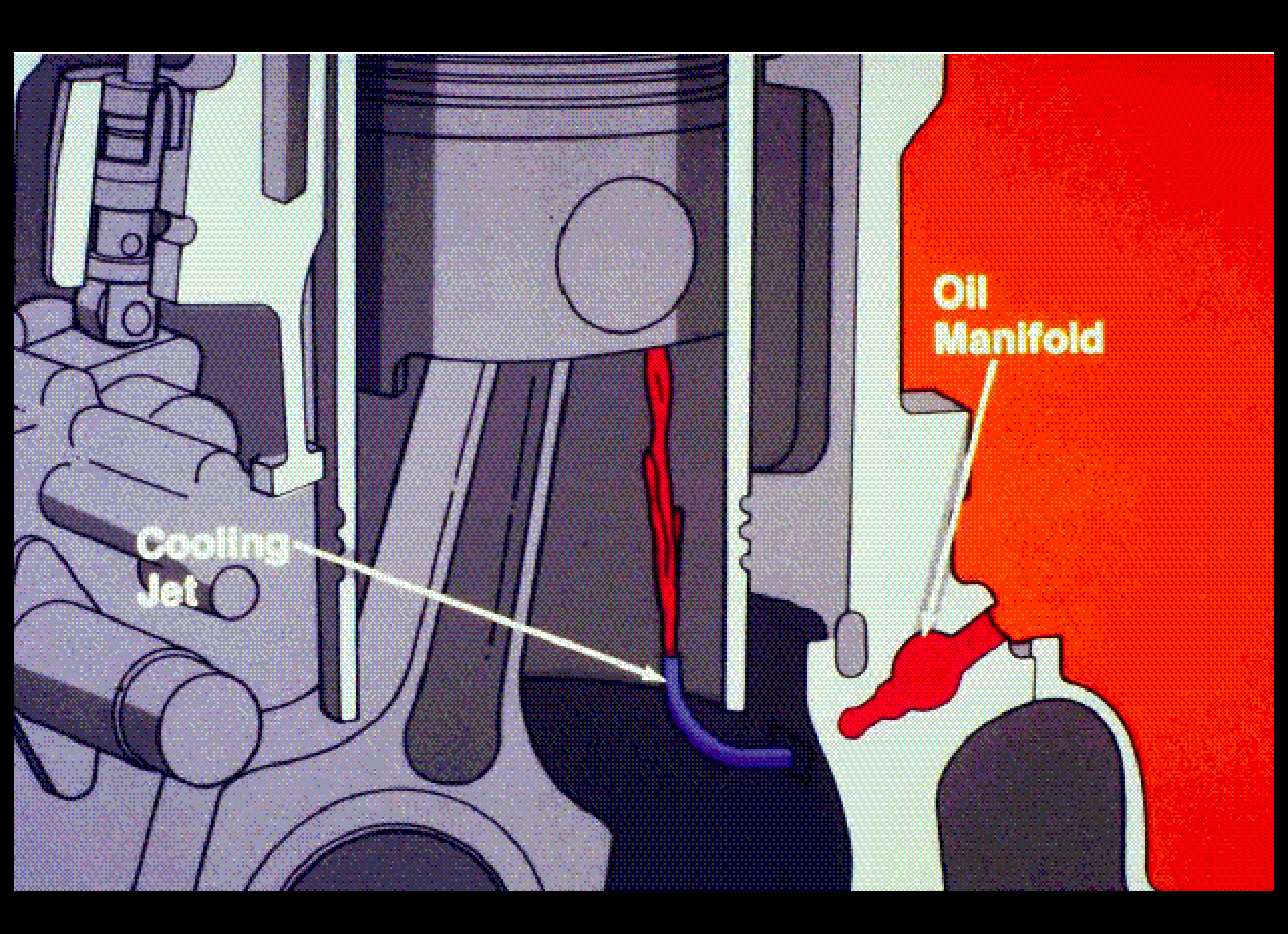

Cooler
CAT

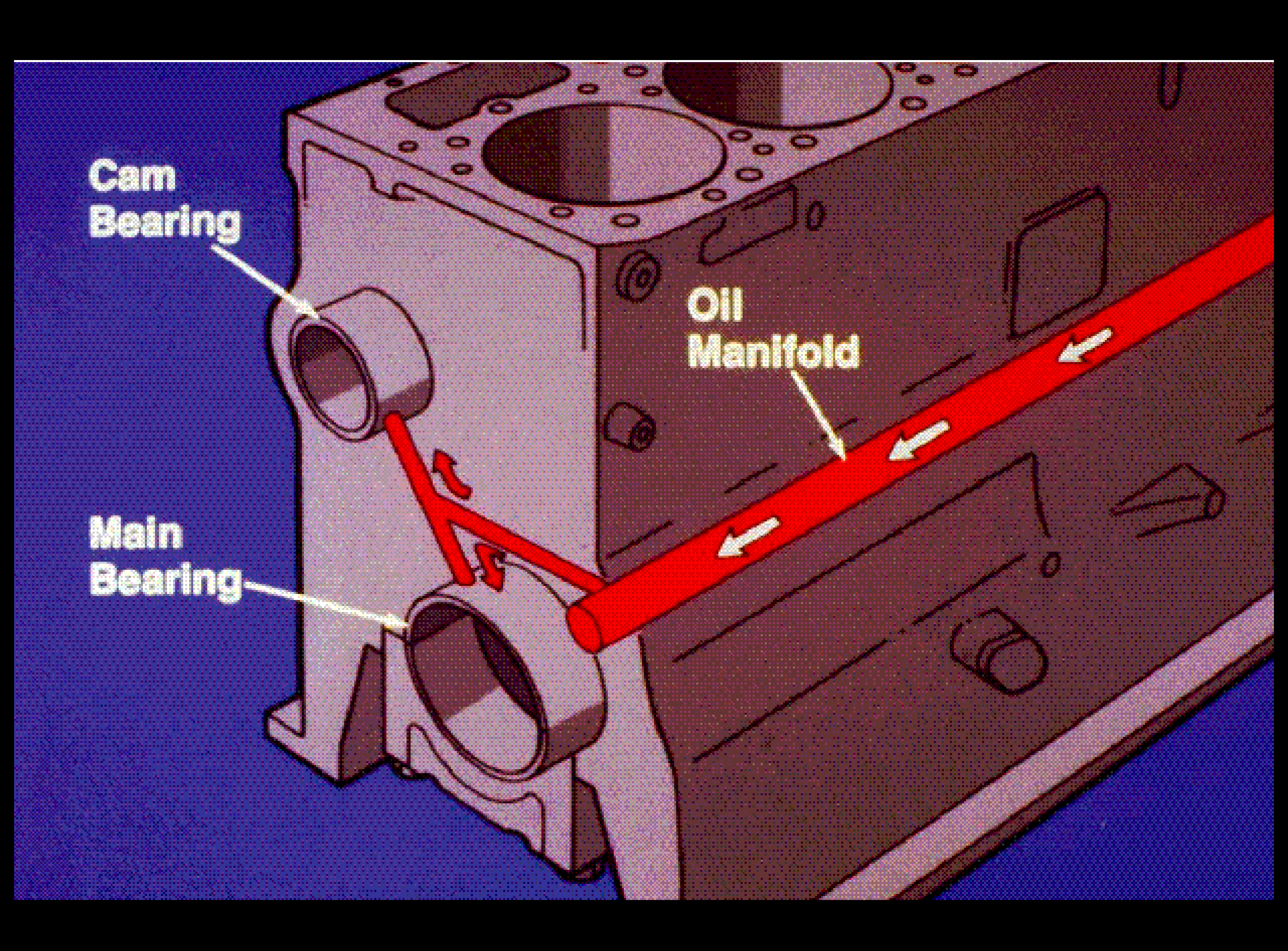

Bypass

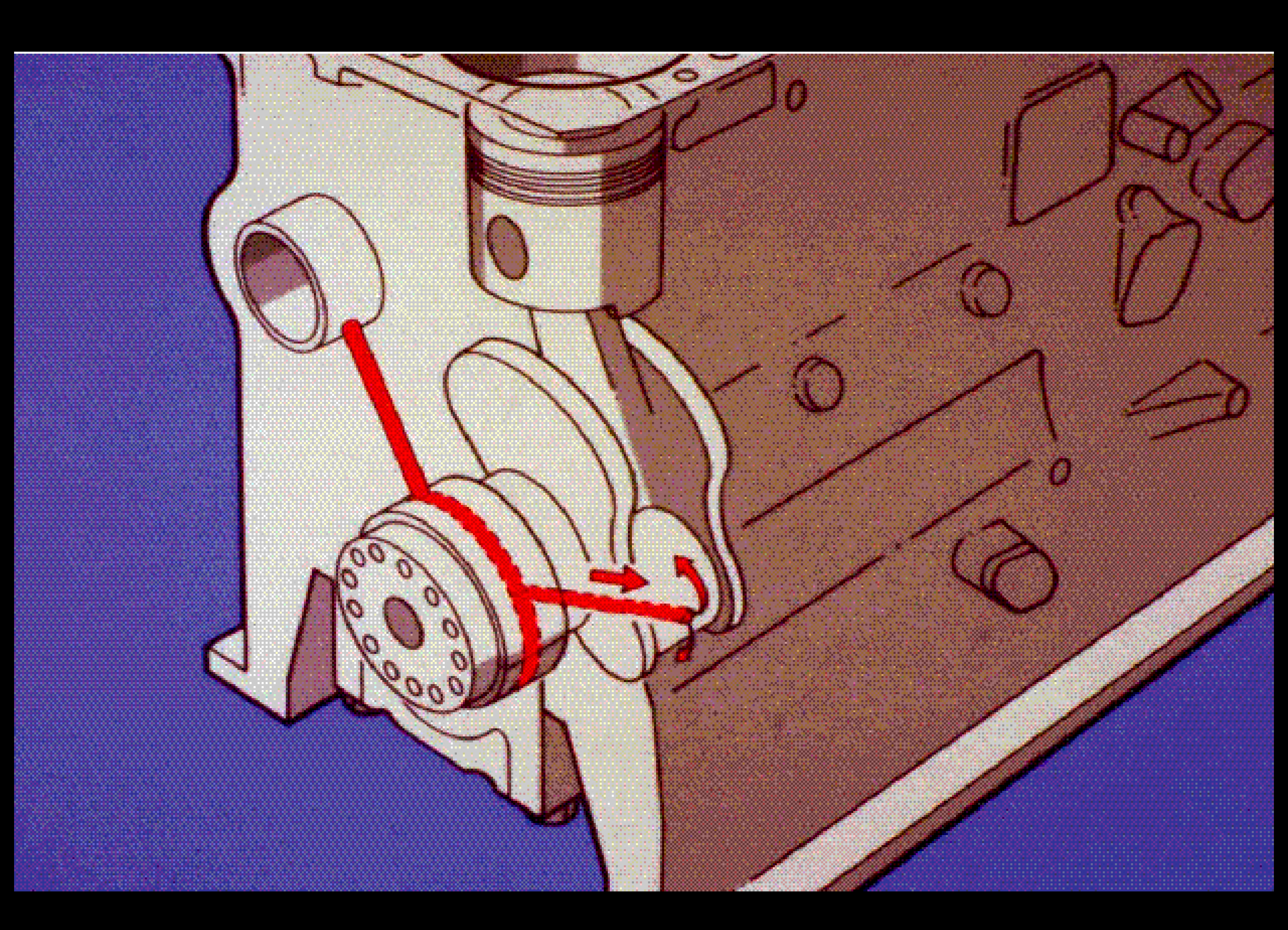

Oil
Filter
CAT

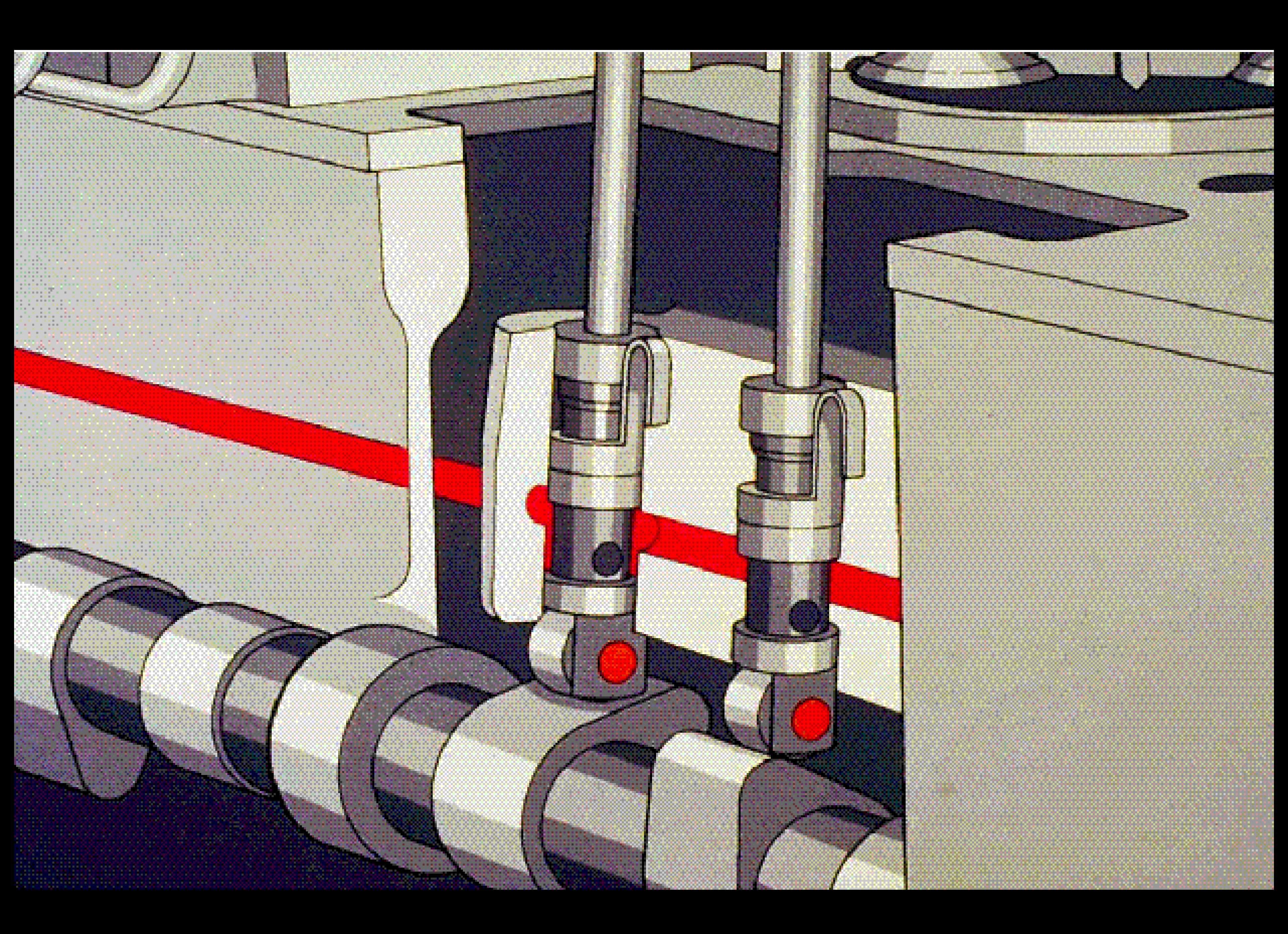

Bypass

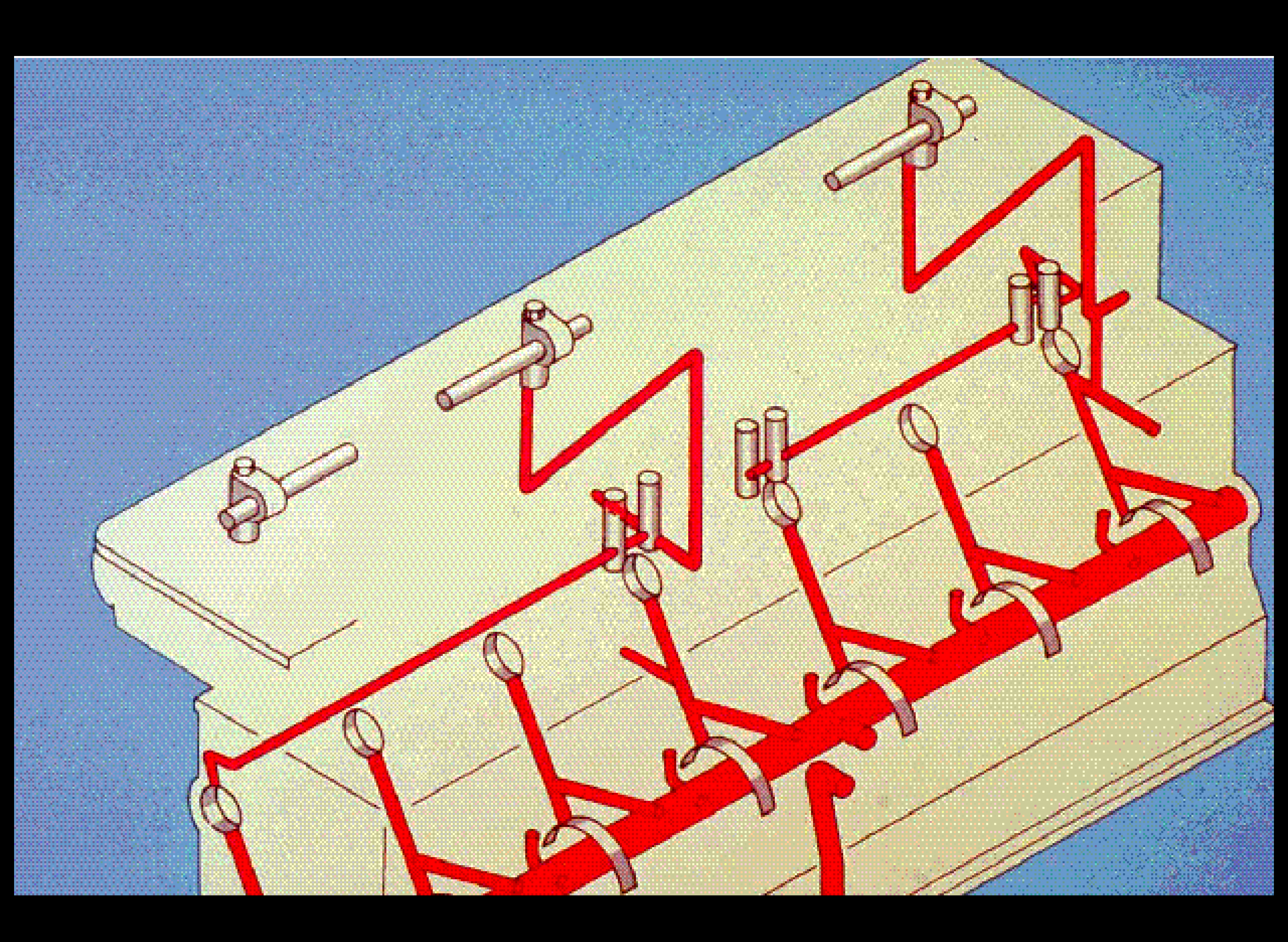

Supply

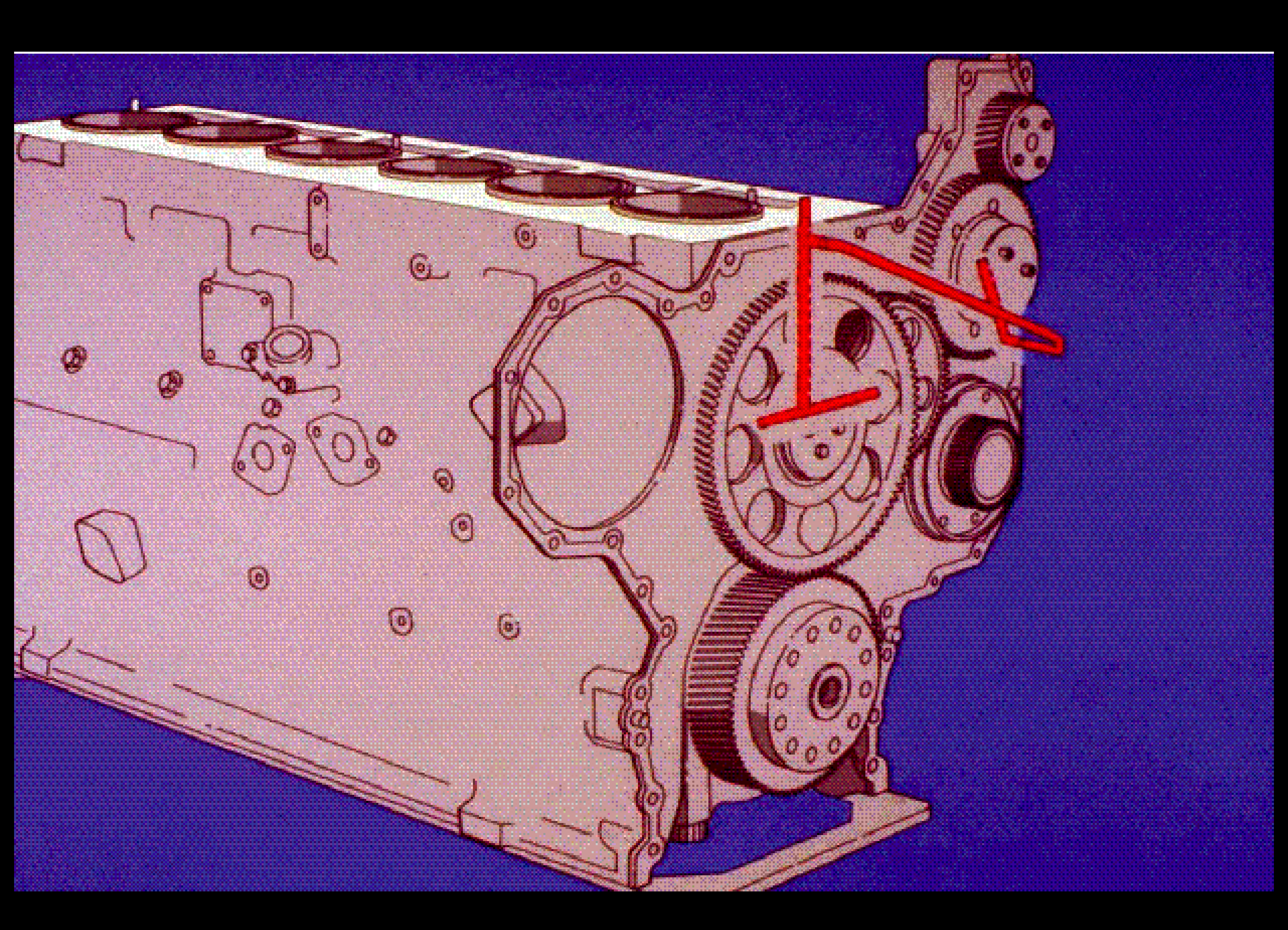

Oil
Manifold
Cooling
Jet

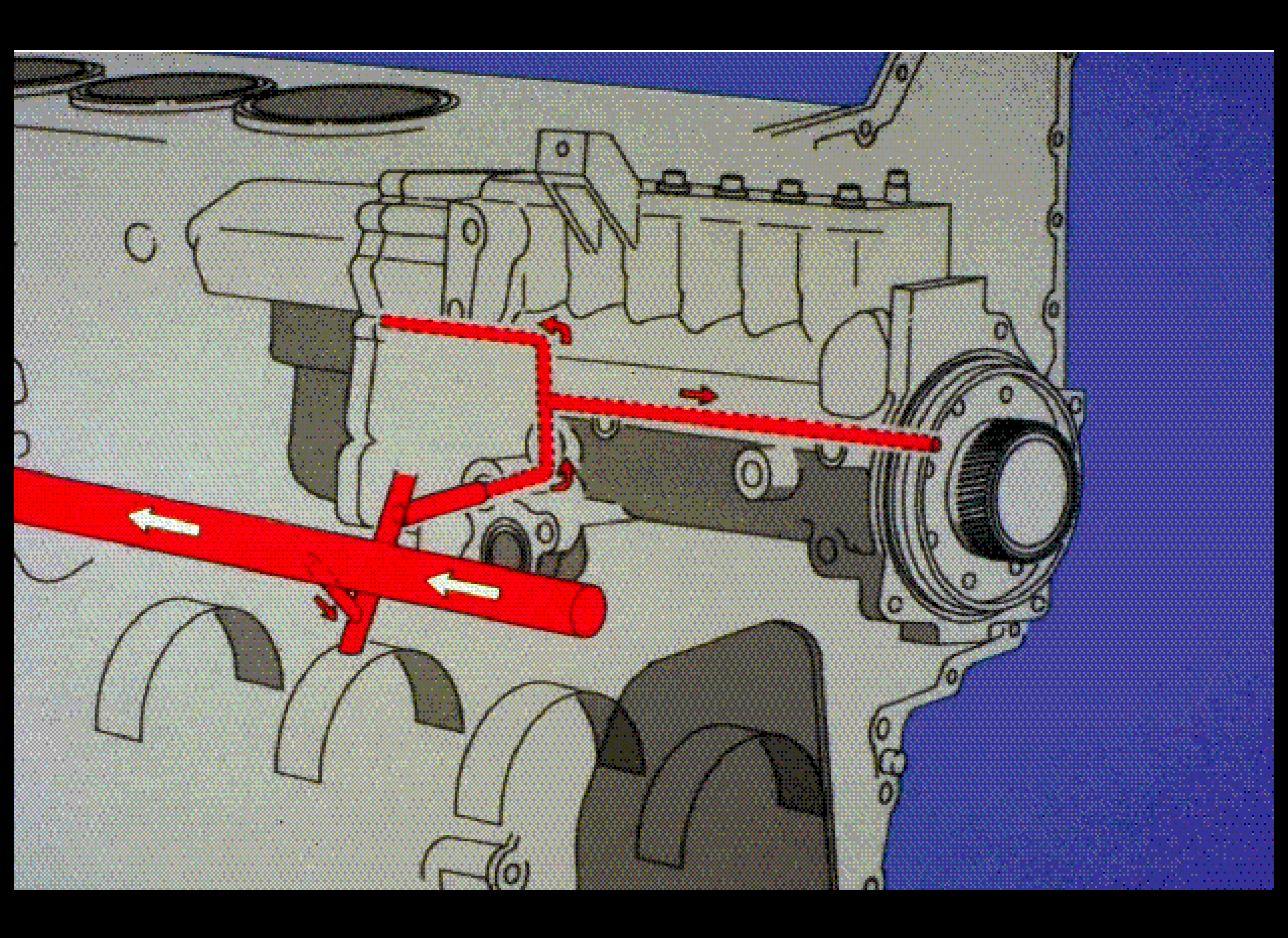

Cam Bearing
Oil Manifold
Main Bearing

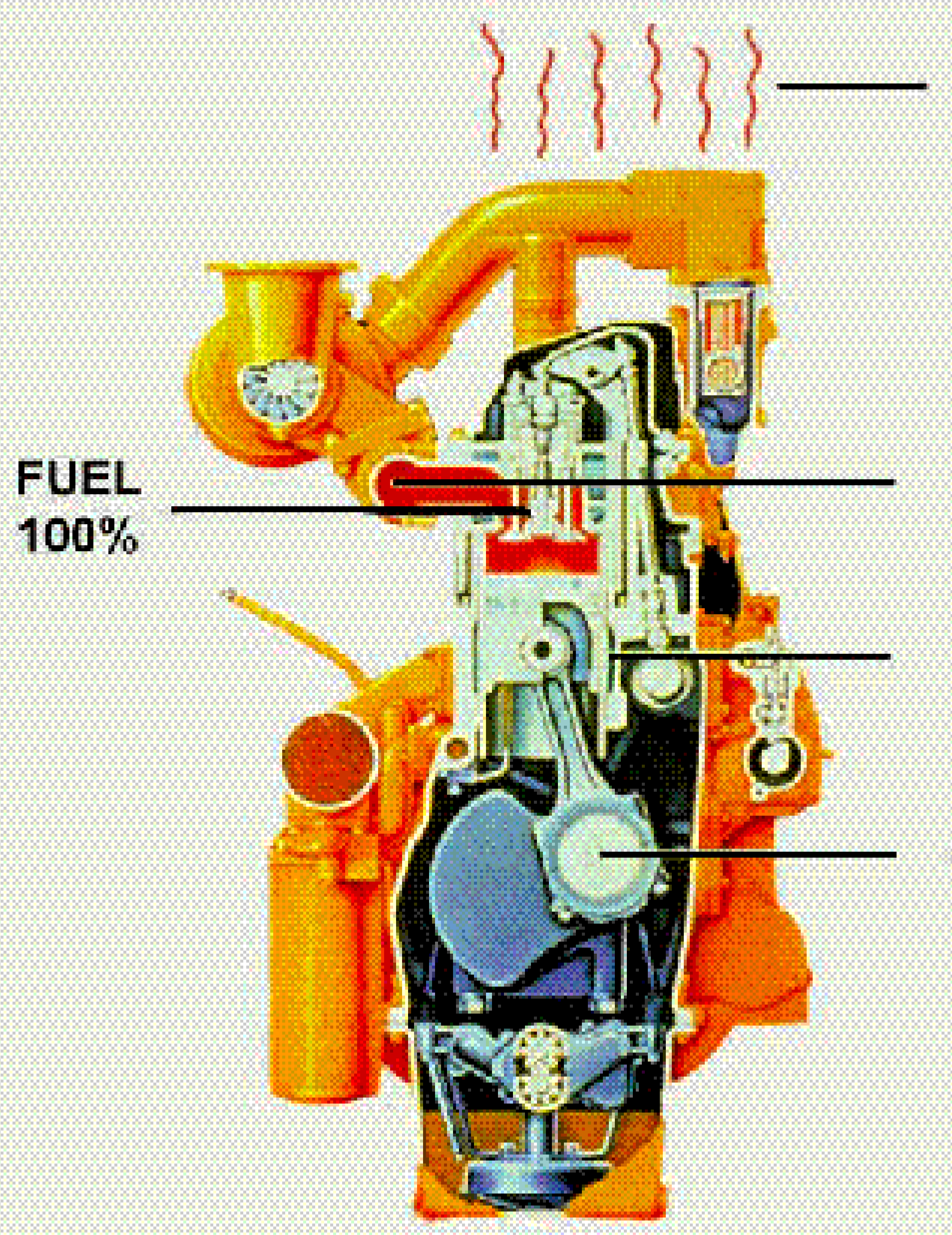


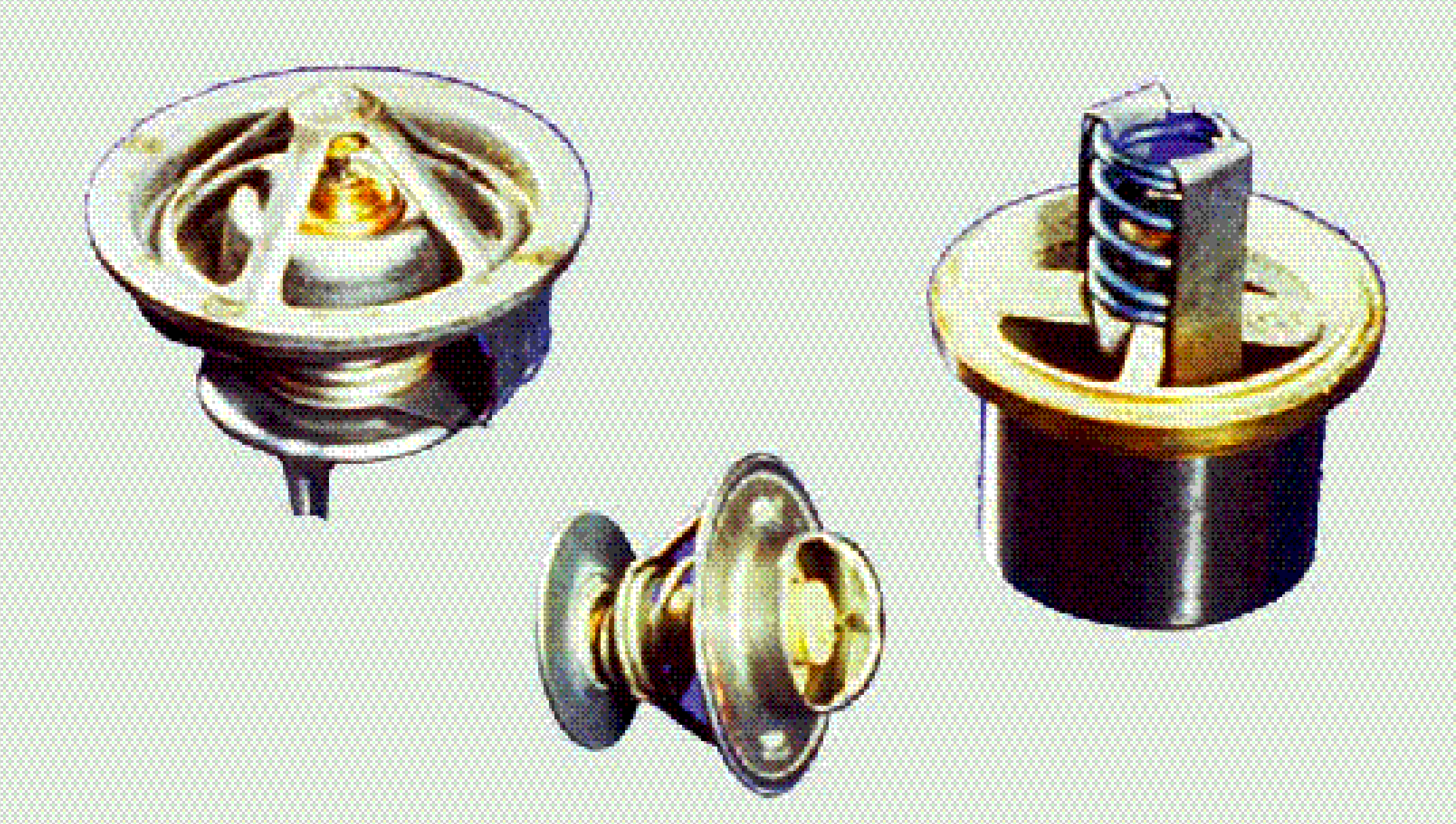




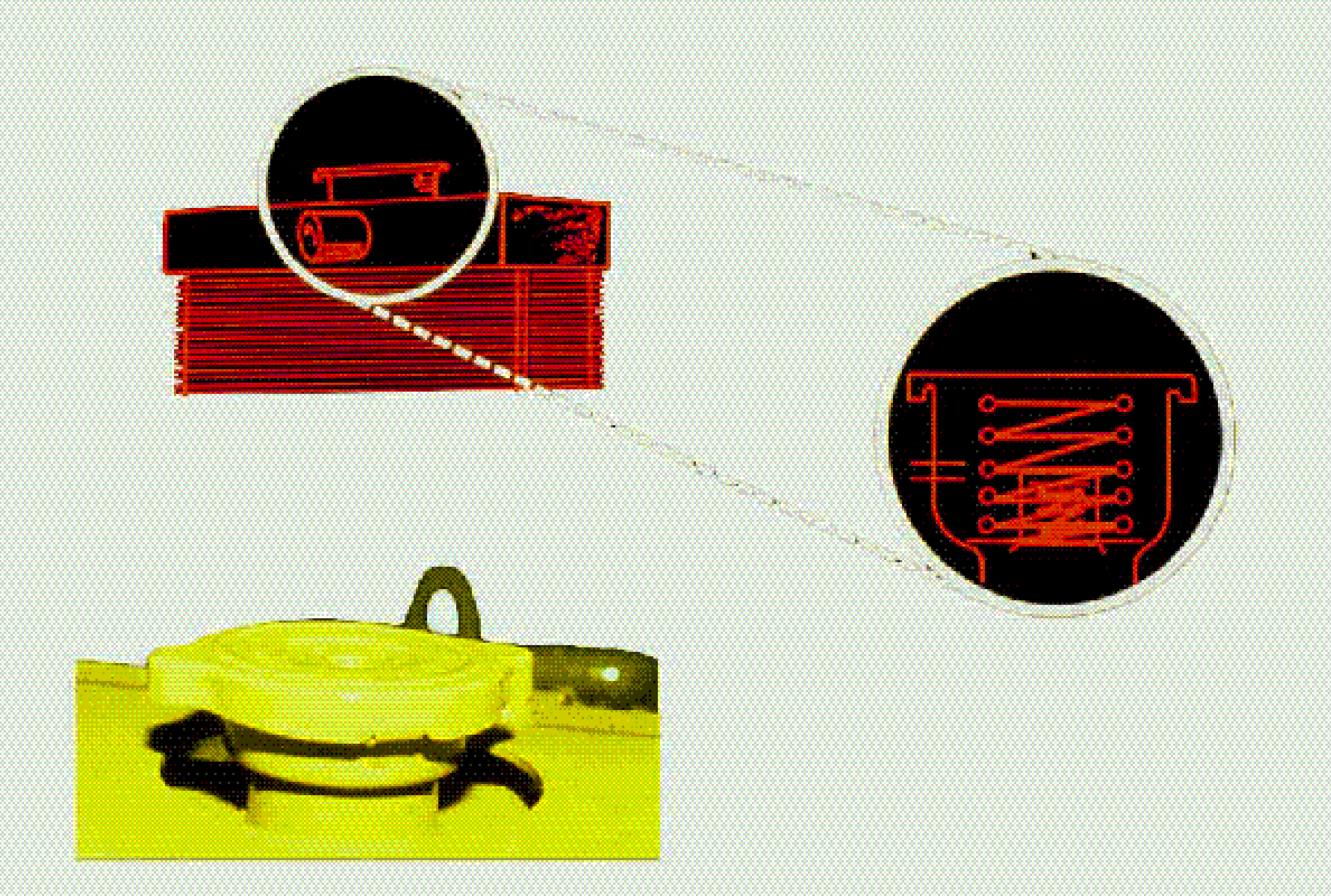


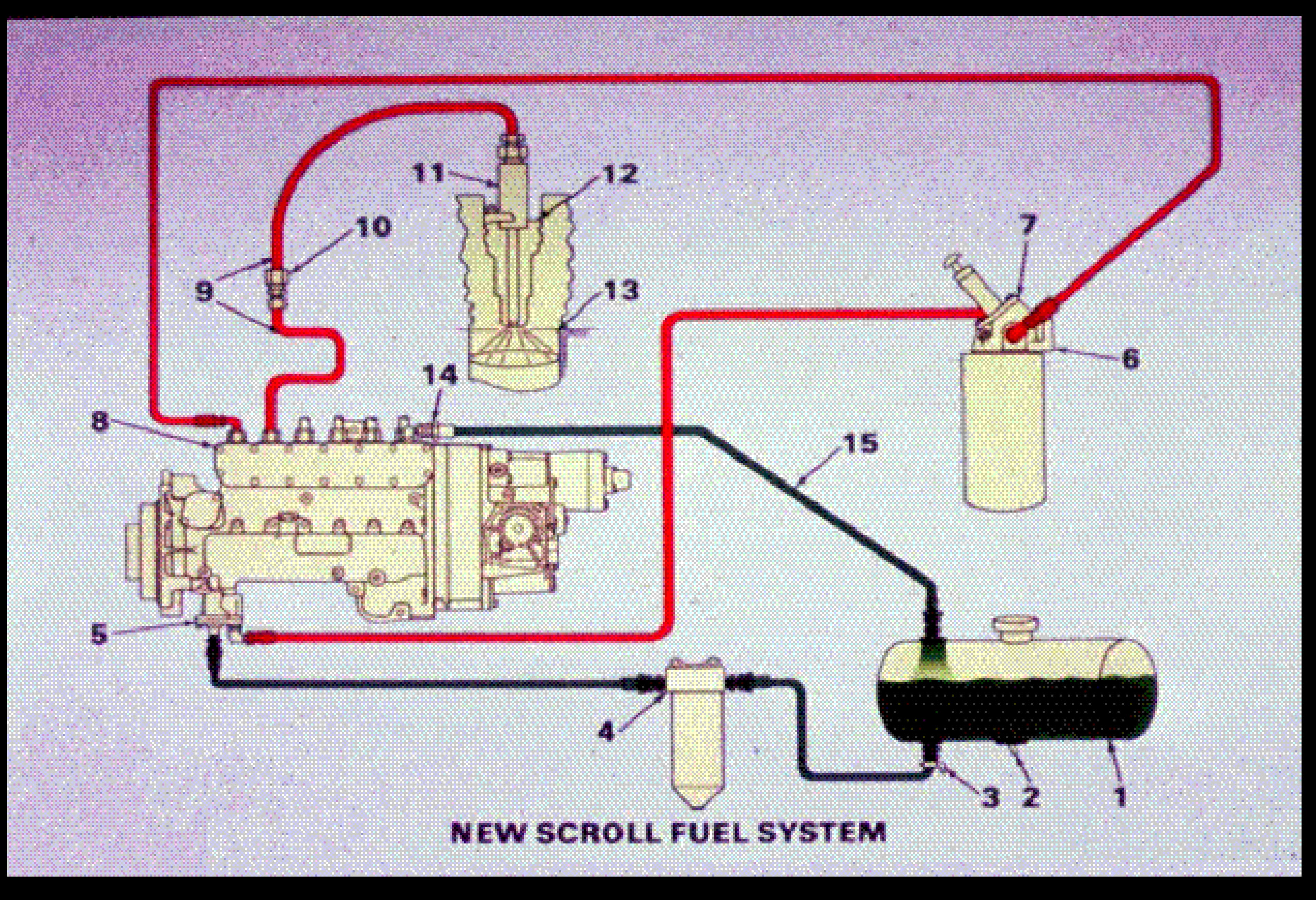


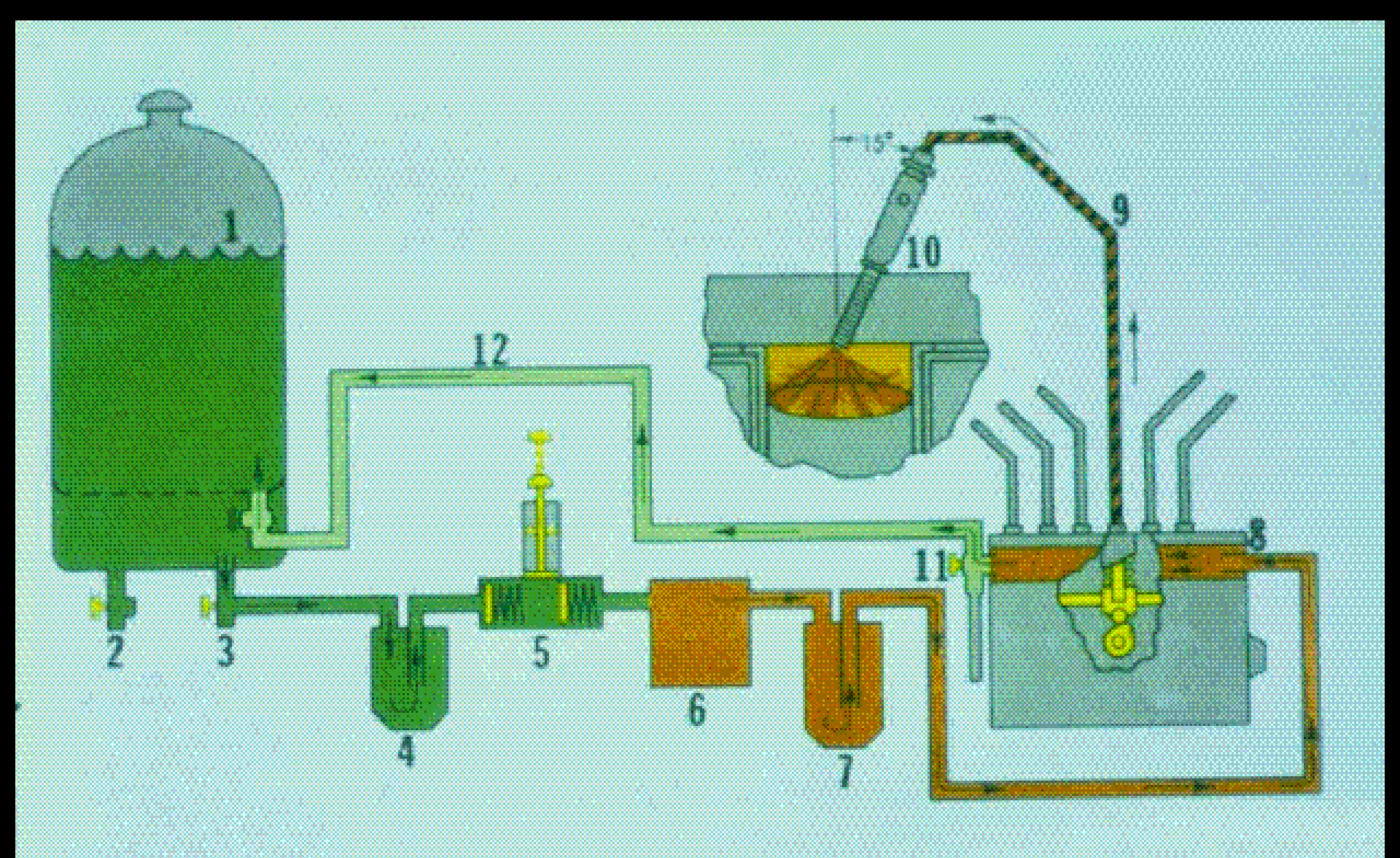

RADIATED HEAT
7%
FUEL
100%
EXHAUST
30%
JACKET WATER
30%
FLYWHEEL
HORSEPOWER
33%



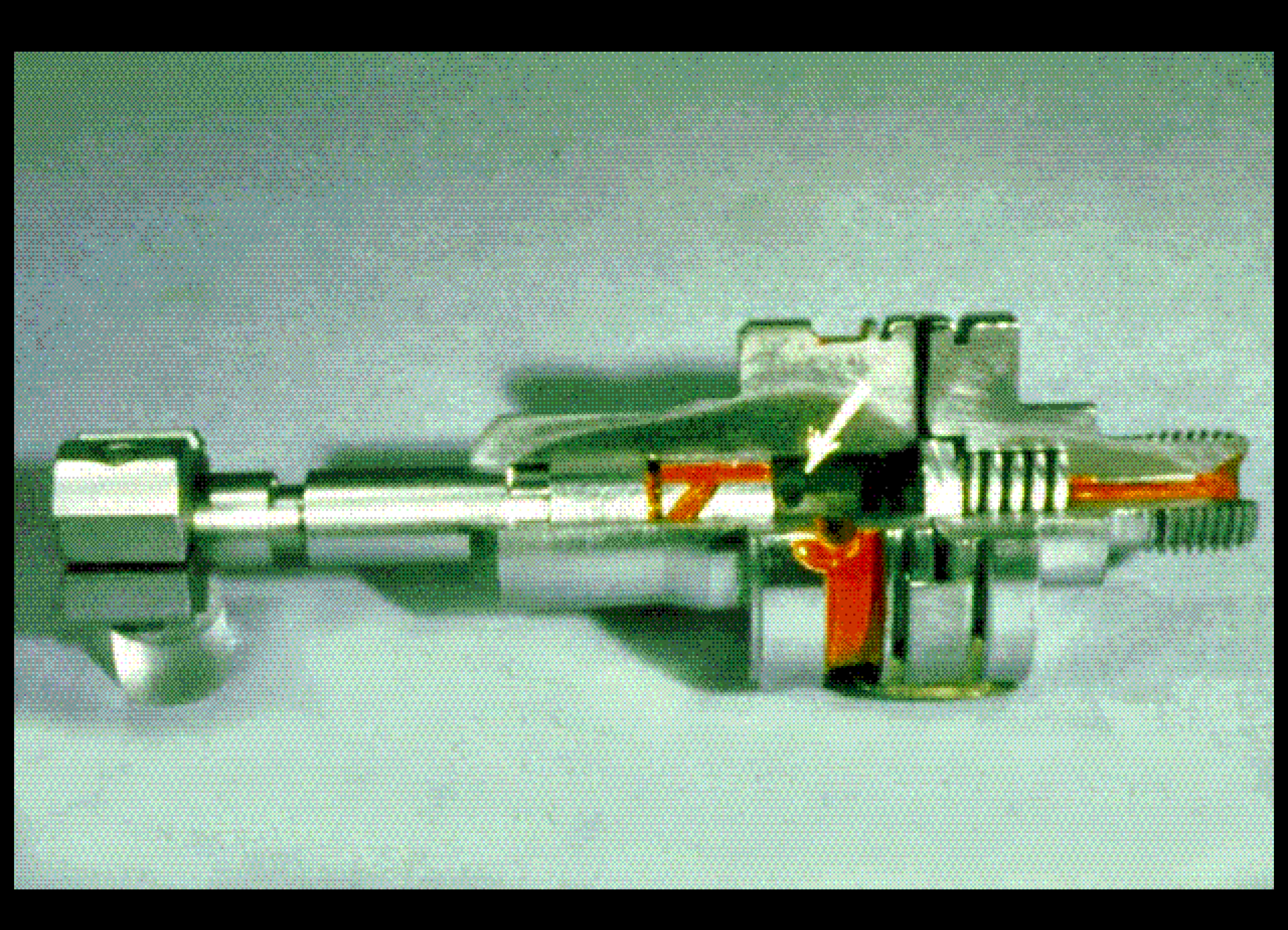


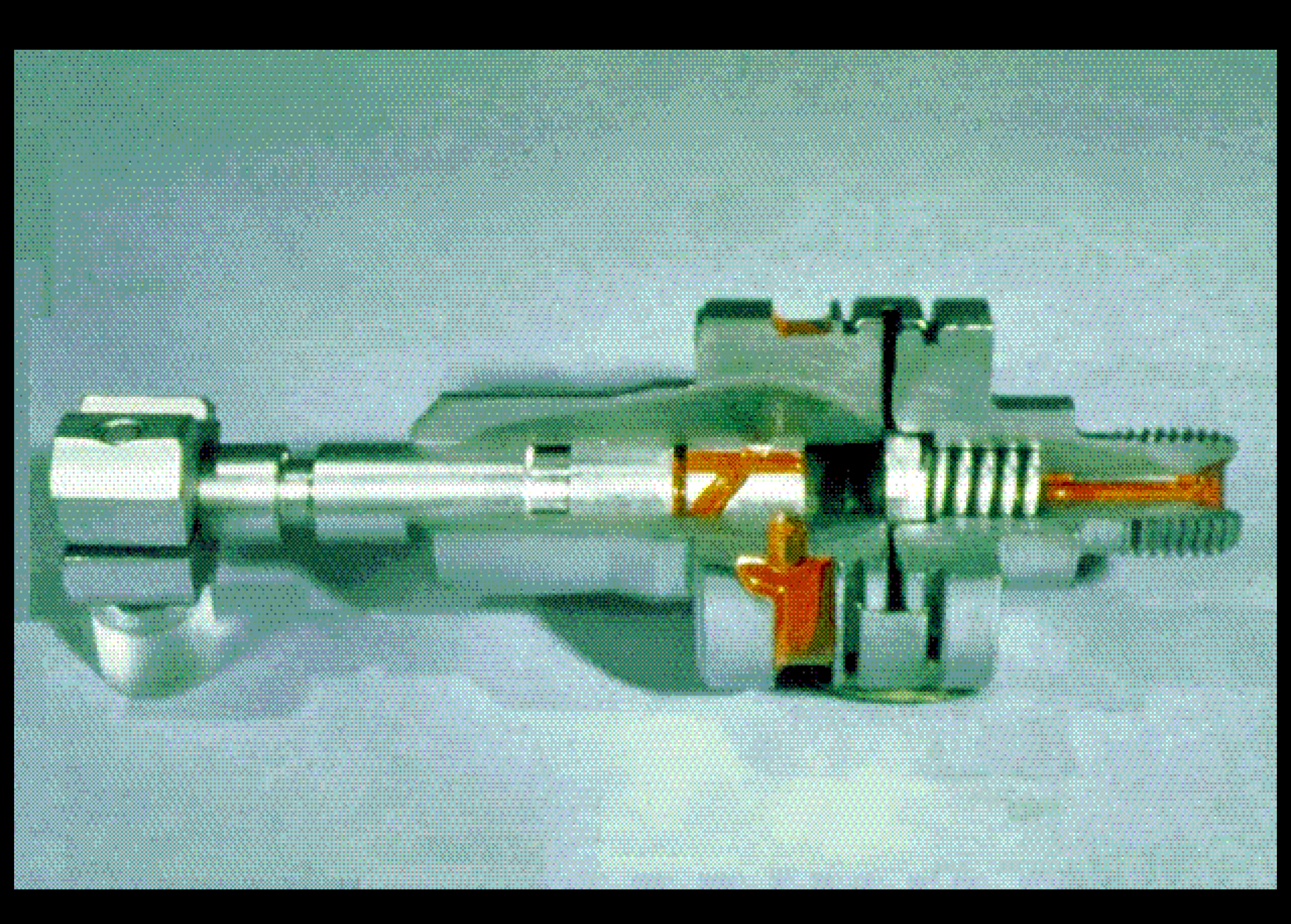


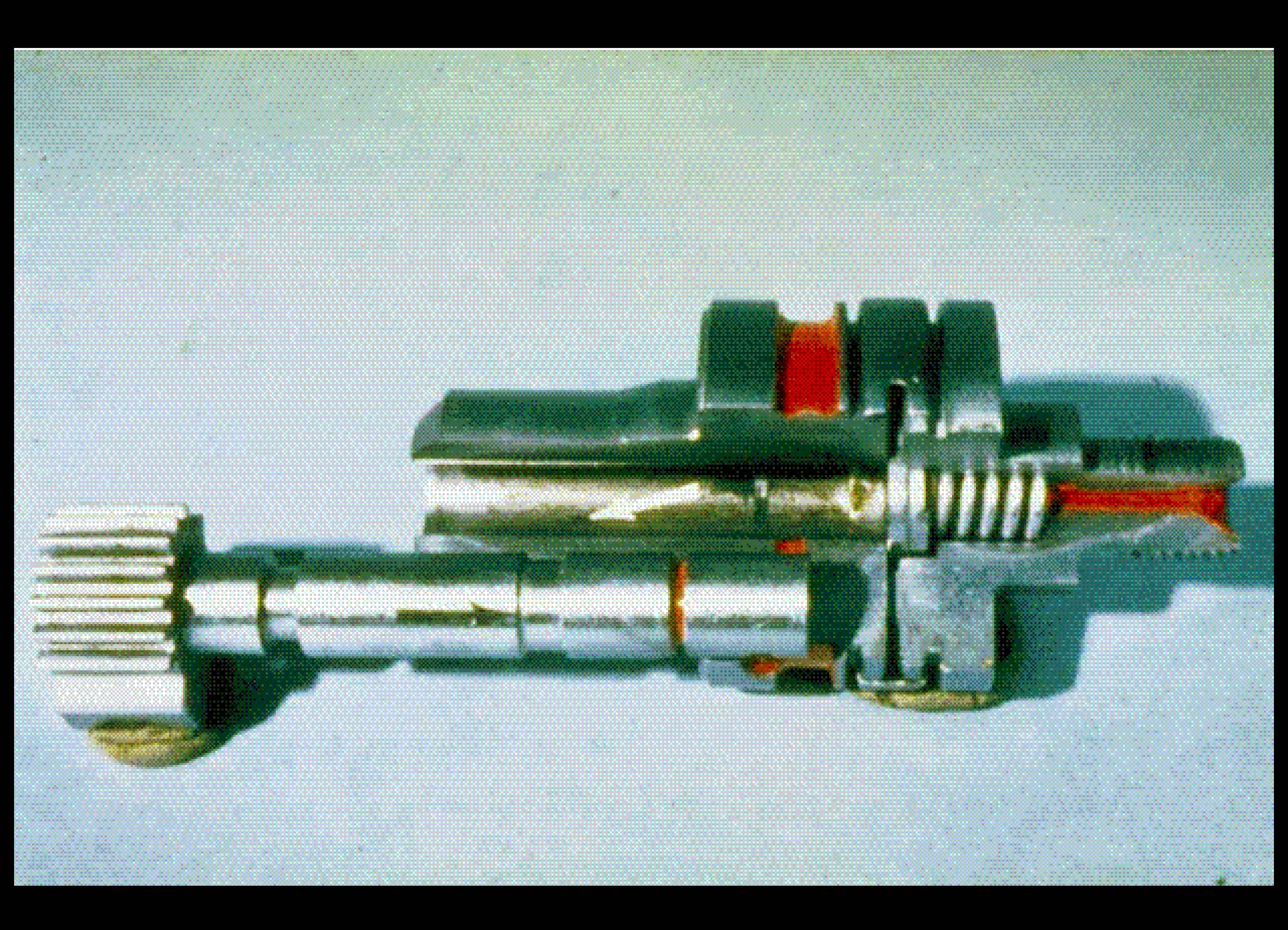

11
12
10
9
13
7
6
14
8
15
5
4
3
2
1
NEW SCROLL FUEL SYSTEM

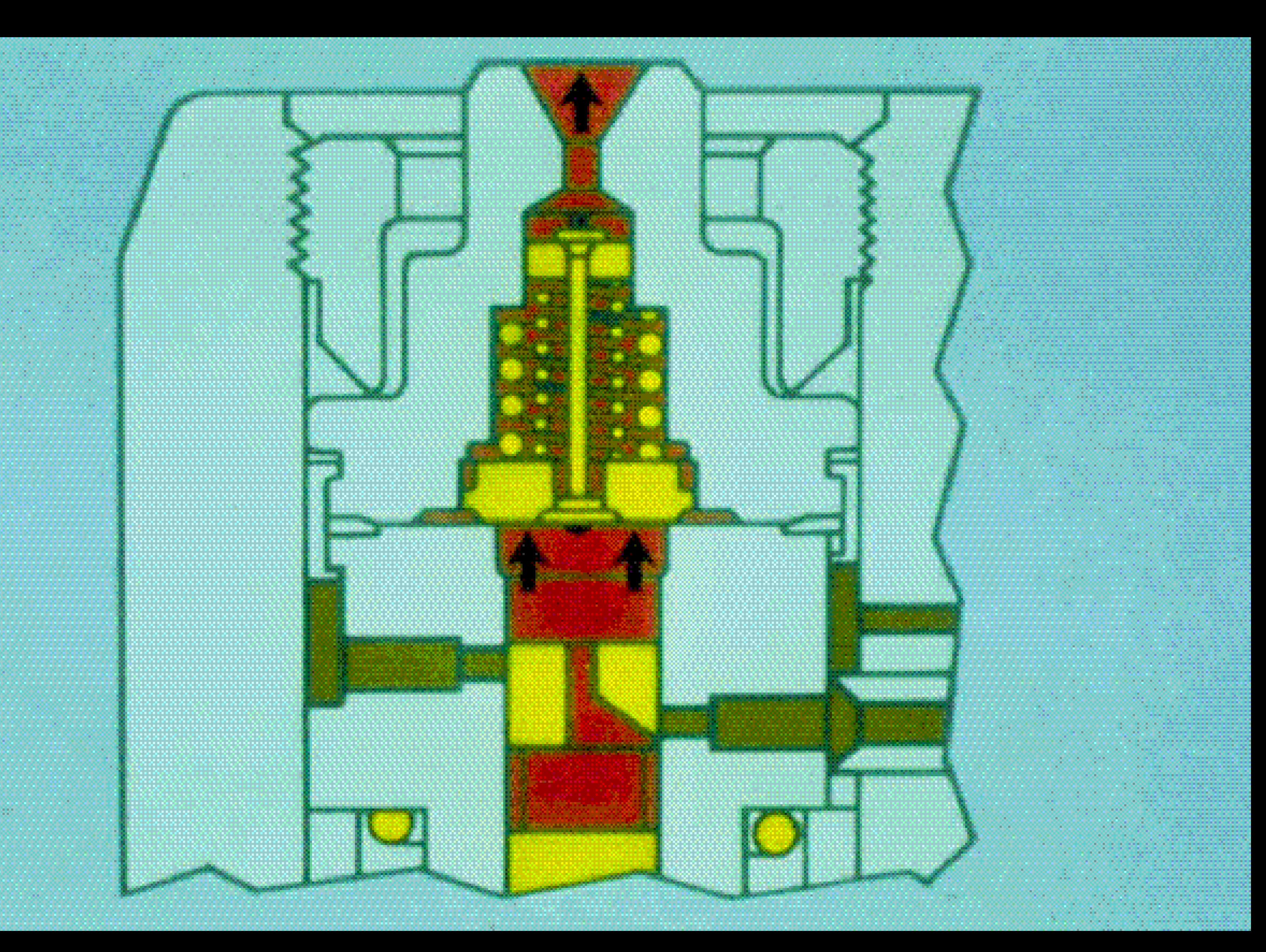


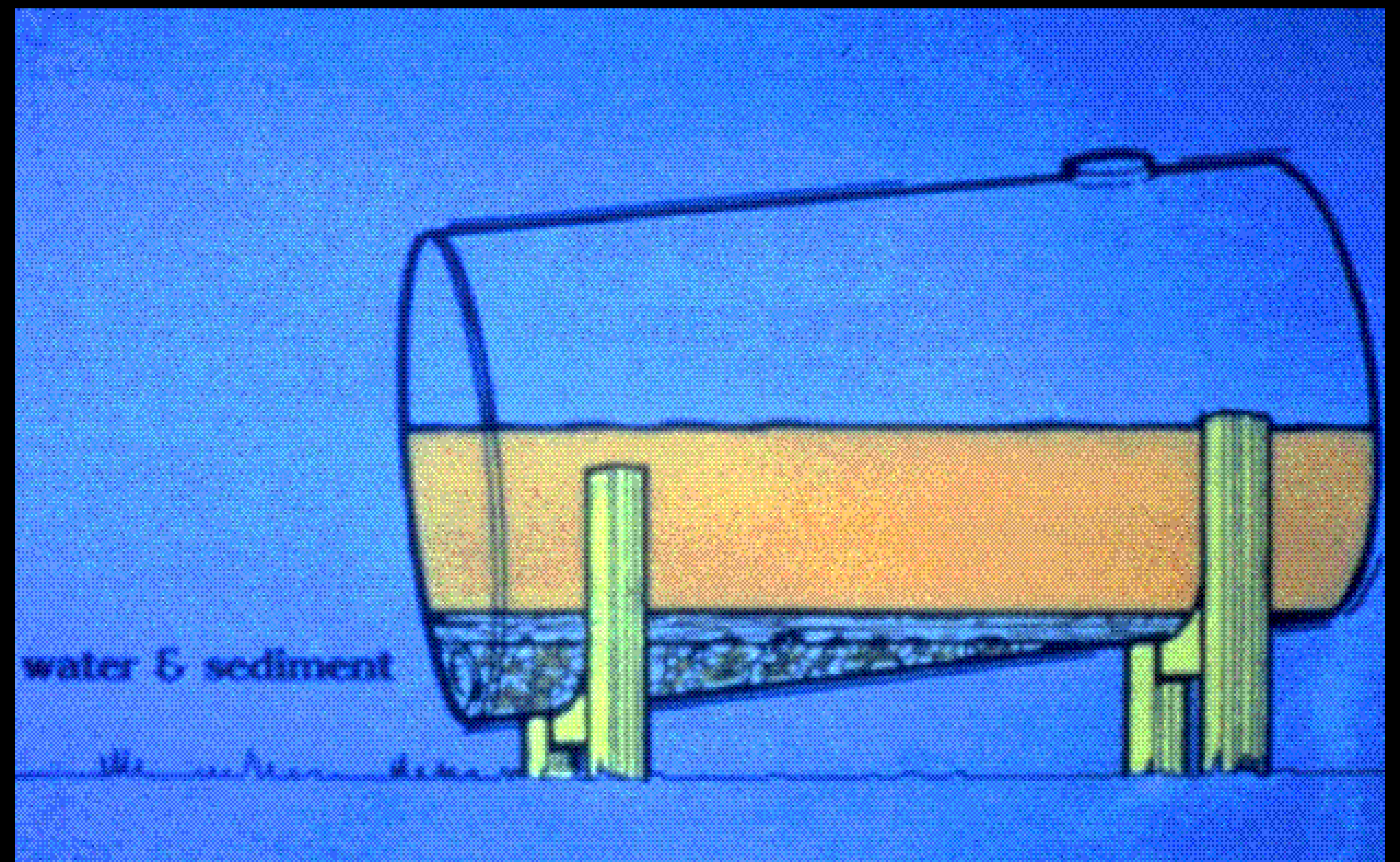
1
2
3
4
5
6
7
8
9
10
11
12
15°










water & sediment